This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

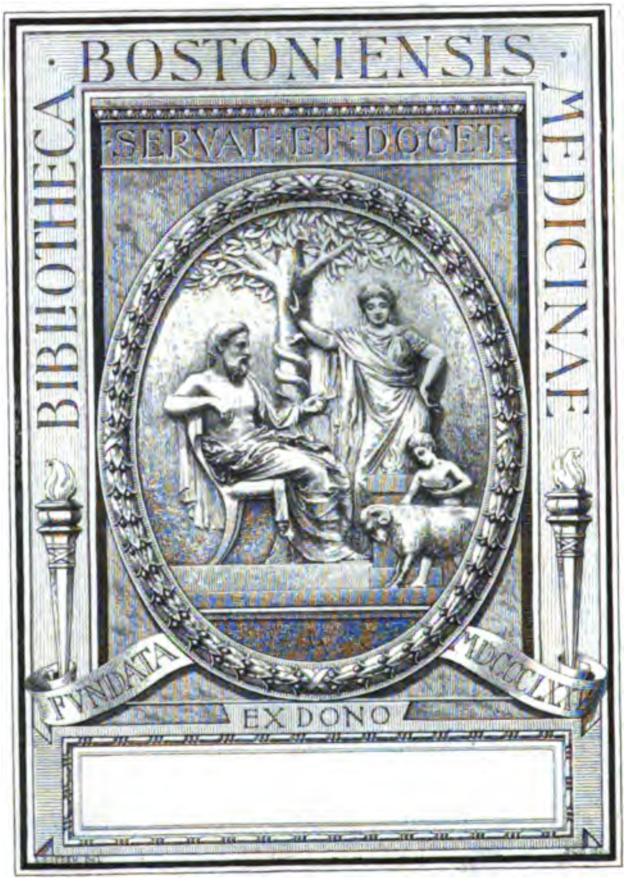
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`


BIBLIOTHECA · BOSTONIENSIS · MEDICINAE
SERVAT · ET · DOCET
FVNDATA
MDCCCLXX
EX DONO

THE AUSTRALASIAN

MEDICAL GAZETTE:

The Journal of the Australasian Branches of the British Medical Association.

EDITED FOR THE PROPRIETORS BY

GEORGE E. RENNIE, M.D., Sydney, N.S.W.

And for the other Branches of the British Medical Association by

H. W. BRYANT, MELBOURNE.　H. SIMPSON NEWLAND, ADELAIDE, S.A.

——————— QUEENSLAND.　HERBERT HORROCKS, PERTH, W.A:

VOL. XXIV.

FROM JANUARY TO DECEMBER, 1905.

Sydney:
Published by the New South Wales Branch of the British Medical Association,
at 121 Bathurst Street, Sydney.
1905.

BOSTON MEDICAL
NOV 20 1906
LIBRARY.

CATALOGUED
NOV 20 1906
E. H. B.

INDEX.

Page.
Abdominal Syphilis, by F. D. Bird, M.B., Ch.M., M.R.C.S. 446
Acetozone Treatment of Typhoid Fever, by Rees F. Llewellyn, M.B. 73
Addison's Disease in a Youth, by R. E. Weigall, M.B. 545
Ambrose, T., M.B., Ch.M., Case of Menière's Disease 214
Anæmia, Nine Cases of Pernicious, by W. Camac Wilkinson, M.D., F.R.C.P. 639
Anderson, A. V. M., M.D., Two Cases of Brain Disease 363
Anderson, T. L., M.D., B.S., Intra-Peritoneal Rupture of the Bladder—Operation—Recovery 19
Andrews, A., M.R.C.S., Viburnum Prunifolium 468
Anti-Diphtheritic Serum, its use in 37 Cases, by V. W. Savage, M.B., Ch.M. 265
Antrum of Highmore, Acute Inflammation of, by Richard Jones, L.R.C.S., L.R.C.P.I. 659
Anus, Abnormal Position of, by C. H. E. Lawes, M.B., Ch.M. 324
Appendicitis from Point of View of General Practitioner, by R. E. Shuter, M.D., Ch.B. 541
Armstrong, W. G., M.B., Ch.M., D.P.H., Lessons from Statistics of Infantile Mortality in Sydney 512
Arteriosclerosis, on the Treatment of, by E. Hirschfeld M.D. 319
Arthritis of Infants, Acute, by J. MacPherson, M.B., B.Sc., Ch.M. .. 23
Arthur Richard, M.D., Two Cases of Pyæmia following Chronic Purulent Otitis 63
Ashton, T. B., M.B., A Fatal Case of Tetanus 24
Aubin, E.D., M.B., B.S., Foreign Body in the Œsophagus (illustrated) 160
Aural Discharges, by W. N. Robertson, M.B., C.M. (Edin.) 59
Australian Health Society 561
Australasian Medical Congress, Programme 393
———— Memo. of Papers 393
———— Inaugural Address, by Prof. E. C. Stirling, M.D., F.R.C.S. 417
———— Cancer and Tumour Growths, by Prof. D. A. Welsh, B.Sc., M.D. 432
———— Abdominal Syphilis, by F. D. Bird, M.B., Ch.M., M.R.C.S.E. 446
———— First General Business Meeting 480
———— Proceedings of Sections .. 484
———— Entertainments 488
———— Exhibits Pharmaceutical and Surgical Appliances 489
———— Presidential Address, by G. A. Syme, M.S., F.R.C.S.E. 503
———— Infantile Mortality in Sydney, by W. G. Armstrong, M.B., Ch.M., D.P.H. 512
———— Gynæcology and Obstetrics, by W. S. Byrne, M.D., M.R.C.P. 521
———— Mental Therapeutics, by J. W. Springthorpe, M.D. 525
———— Ethics and Works in Medicine, by D. Colquhoun, M.D., M.R.C.P. 573
———— Presentation to Drs. Poulton and Gunson 682
———— Month 166, 328, 337

Page.
Barcoo or Belyando Fever, by F. Watson, M.B., Ch.M. 212
Beckett, T. G., L.R.C.P., R.C.S., Use of Liquid Air in Surgery and Skin Diseases 313
———— A Travelling Needle 116
Bipolar Faradic Current in the Treatment of Ovarian Pain, by M. A. Schalit, B.Sc., M.D. 266
Bird, F. D., M.B., Ch.M., M.R.C.S., Abdominal Syphilis 446
Births, Marriages and Deaths, 50, 100, 144, 192, 246, 302, 354, 416, 502, 572, 636 688
Bladder, Intra-Peritoneal Rupture of the—Operation—Recovery, by T. L. Anderson, M.D., B.S. 19
Books Received, 50, 100, 144, 192, 246, 302, 354, 416, 502, 572, 636 .. 688
Brain Disease, Two Cases of, by A. V. M. Anderson, M.D. 363
British Medical Association News:
  New South Wales, 30, 82, 169, 222, 277, 331, 389, 476, 552, 600, 666
  Victoria, 32, 124, 173, 223, 278, 334, 390, 478, 554 605
  Ballarat, 35, 81, 224, 333 478
  New Zealand, 36 174
  Queensland, 81, 123, 174, 223, 278, 334, 391, 477 604 669
  South Australia, 123, 173, 224, 278, 333, 391, 554, 605 667
  Council Meetings, New South Wales, 172, 333, 390, 554 667
  West Australia, 281 479
Bronchus, Foreign Body retained in the, for 20 Months, by J. F. Lovegrove, M.R.C.S. 214
Bryant, H. W., L.R.C.P., Two Gynæcological Cases 263
Byrne, W. S., M.R.C.P., Practical Points in Gynæcology and Obstetrics 521

Cancer and Tumour Growth, Recent Observations on, by Prof. D. A. Welsh, M.D., B.Sc. 432
Catarrh, by C. L. M. Iredell, M.R.C.S. 316
Chicken-pox, Severe Semi-confluent, with Multiforme Erythema, by P. H. Metcalfe, M.R.C.S. (illustrated) 23
Clubbe, C. P. B., M.R.C.S., L.R.C.P., Diagnosis and Treatment of Intussusception 459
Colon, Absence of Ascending, Transverse and Descending, and of the Sigmoid Flexure, by J. B. Nash, M.D., M.L.C., and Prof. J. T. Wilson 210
Colquhoun, D., M.D., Ethics and Work in Medicine 573
Corlette, C. E., M.D., Ch.M., D.P.H., Review of the Subject of Starch Determination of Starch Content in Barley Water and Rice Water .. 1
Correspondence:—
  London, 36, 82, 131, 177, 233, 289, 340, 399, 491, 561, 611 676
  Victoria, 85, 179, 291, 494 615
  Tasmania, 133, 341, 402 676
  South Australia, 292, 495 614
  Queensland 401
  Some Diagnostic Signs of Early Phthisis, 38 85
  The Sydney Milk Supply 86
  Hospital Philanthropy 138, 235

Correspondence—continued — Page
  Hospital Matters in New Zealand. 135
  Notification of Pulmonary Consumption 136
  Battle of the Clubs, 180 292, 570 681
  Treatment of Post-Partum Hæmorrhage 235
  A Wool Box 236
  Government Medical Fees 342
  An Efficient Toothbrush 342, 404
  Disinfection of Hands 403
  The Trend of Modern Midwifery 404, 496
  A Disclaimer 496
  Intussusception 561
  Consultants and General Practitioners 561
  Landry's Paralysis 679
  Obstetric Practice 679
  Transplantation of the Ureters into the Rectum in Ectopia Vesicæ. 680
  Digitalone 680
Cox, Jas., M.D., Otitis Media involving Lateral Sinus and Temporo-Sphenoidal Lobe 579
Cribbe, A. W. G., L.R.C.P., Treatment of Uric Acid Conditions by Haig's Diet 581
Cuscaden, G., L.R.C.P., Eclamptic Convulsion occurring 14 days after Confinement 382

Dengue Epidemic in Brisbane in 1905, Report on the 617
Dental Decay and Hygiene, by W. R. Parker, L.D.S. 257
Diagnosis and Treatment of Intussusception, by C. P. B. Clubbe, M.R.C.S., L.R.C.P. 459
Drummond, J. H. G., L.R.C.P., Scheme for a Provident Annuity Society for Medical Men 118
Dysentery, Epidemic of Acute, by Jno. R. Harris, M.D., B.S., and Dr. Bull 654
Eclampsia, Puerperal, Massive Subcutaneous Injections of Saline Solution in, by J. E. Ramsay, M.B. (Lond.) 593
Eclamptic Convulsion occurring 14 days after Confinement, by G. Cuscaden, L.R.C.P. 382
Editorials—
  The Australasian Medical Congress 27
  Medical Men and Death Certification 28
  The Relations of the Profession and the General Public 76
  The Treatment of Inoperable Cancer 77
  The Educational Value of Medical Societies 119
  Acute Rheumatism 120
  Alcohol as a Factor in Heredity .. 164
  Abortionists and the Law 165
  An Ethical Programme for the next Australasian Medical Congress 217
  The Value of the Sanatorium Treatment of Pulmonary Tuberculosis 218
  Alleged Increase of Cancer 272
  Hospitals and Ambulance Brigades 273
  The Scientific Training of Medical Practitioners 326
  Cancer Research 327

Editorials—*continued*. Page.
  Plague in India and Australia.... 385
  Modern View of Insanity and its Treatment ..? 386
  The Australasian Medical Congress 472
  The Sectional Addresses at the Congress 473
  The Conduct of Medical Congresses 548
  Lunacy Reform in Victoria...... 549
  "Consumption Cures"........ 595
  Homœopathy 596
  Medical Registration 661
  The Care of State Children...... 662
Epilepsy, Post-traumatic—Trephining—Incision and Drainage of Cyst in Frontal Area of Brain—Recovery, by Philip James, F.R.C.S. 106
——— the Treatment of, by C. S. Hawkes. F.R.C.S.E. 644
Ethics and Work in Medicine, by D. Colquhoun, M.D............ 573
Exophthalmos, Pulsating — Post-mortem, by J. L. Gibson, M.D. (Edin.) 107
Extro-Version of the Bladder, Treatment by Extra-Peritoneal Implantation of the Ureters into Rectum, by H. S. Newland, M.B., M.S.... 584
Eye, Inflammations of, Diagnosis of some of the Commoner, by G. A. Scott, M.B., Ch.M............ 537

Fearnley, W. J., M.B., B.S., Acute Meningitis, following Epidemic Parotitis—Operation—Recovery. 12
Fibroids of Uterus, Pathology of, by C. F. Harkin, M.B., Ch.M., Dub... 68
Fox, W. R., L. *et* L. Mid. R.C.S., History and Development of the Light Treatment (continued from vol. 23, p. 630)................ 13
Friendly Societies in N.S. Wales. .. 671

Gangrene, Symmetrical, in General Paralysis of the Insane, by J. Steell, M.B., Ch.M., L.R.C.P..... 20
Gibson, J. Lockhart, M.D., Pulsating Exophthalmos—Post-mortem .. 107
——— Soluble Sulphate of Quinine in Ophthalmic Practice...... 366
Goitre, Sudden Case of, by W. Macansh, M.B.................... 323
Gynæcological Cases, by H. W. Bryant, L.R.C.P............... 263
Gynæcology and Obstetrics, Practical Points in, by W. S. Byrne, M.D., M.R.C.P................ 521

Hæmoglobinuria, Case of, by A. S. Joske, M.D. 210
Hæmorrhage, Case of Tracheal, by H. Russell Nolan, M.B., Ch.M... 109
Hall, E. C., M.D., Ch.M., Five Cases of Placenta Prævia 21
Ham, B. Burnett, M.D., D.P.H., F.R.C.S.I., Recent Epidemic of Infantile Paralysis 193
Hamilton, C. W., M.D., B.Ch., Presidential Address................ 355
Hamilton, J. A. G., M.B. *et* L. Mid. L.R.C.S., Notes on Three interesting Ovarian Tumours 115
Hamilton-Kenny, F., M.R.C.S., Notes on Some Hospital Cases 111
Hanging, Case of Accidental, by C. MacLaurin, M.B., C.M. 255
Hankins, G. T., M.R.C.S., Radical Mastoid Operation, Result of Treatment 199
Harkin, C. F., M.B., Ch.M. (Dubl.), Pathology of Fibroids of Uterus.. 68
Harris, Jno. R., Epidemic of Acute Dysentery 654
Hawkes, C. S., F.R.C.S.E., the Treatment of Epilepsy 644
Hayward, W. T., M.R.C.S., Two Cases of Tetanus 253
Health of Hobart, Report on...... 628
Health of Melbourne, Abstract of Annual Report 406
Health of Queensland, Report on .. 624
Health of Sydney, Abstract of Annual Report 346
Herring, E. Ken, M.R.C.S., L.R.C.P., Surgical Aids and Makeshifts.... 110
Hinder, H. Critchley, M.B., Ch.M., Internal Derangement of Knee-joint (illustrated) 247
Hirschfeld, E., M.D., Treatment of Arteriosclerosis 319
——— Spring Hill Fever 111
Hospital Cases, Notes on Some, by F. Hamilton-Kenny, M.R.C.S. .. 111
Hospital Intelligence, 46, 96, 138, 188, 239, 296, 350, 408, 497, 568, 632
Hospitals of Tasmania, Report of Royal Commission 411
Hydatid of Liver, An Unusual Case, by T. A. Wilson, M.B. 469
Hypnotic Treatment, by R. T. Mitchell, M.B., C.M. 321

Infancy, Management of Diseases of, by A. J. Turner, M.D. (illustrated) 371
Infantile Mortality in Sydney, Lessons from Statistics, by W. G. Armstrong, M.B., Ch.M., D.P.H. 512
Infantile Paralysis, Epidemic of, by B. B. Ham, M.D., D.P.H., F.R.C.S. (Irel.) 193
Insanity in Australia (Queensland) 630
Intra-Peritoneal Rupture of the Bladder—Operation — Recovery, by T. L. Anderson, M.D., B.S.... 19
Iredell, C. L. M., M.R.C.S., Catarrh 316

James, Philip, F.R.C.S., Post-traumatic Epilepsy — Trephining — Drainage of Cyst in Frontal Area of Brain—Recovery............ 106
Jones, Richd., L.R.C.S., L.R.C.P.I., Acute Inflammation of the Antrum of Highmore............. 659
Joske, A. S., M.D., Case of Hæmoglobinuria 210
——— Landry's Paralysis...... 590

King's Tableland Sanatorium, Medical Report for 1904 239
Knee-joint, Internal Derangement of, by H. C. Hinder, M.B., Ch.M. (illustrated) 247

Landry's Paralysis, by A. S. Joske, M.D. 590
Laurie, H., M.D., Case of Nutmeg Poisoning 158
Laurie, W. S., M.D., B.S., Chronic Alcoholic Leptomeningitis 588
Lawes, C. H. E., M.B., Ch.M., Abnormal Position of Anus 324
Lendon, A. A., M.D. (Lond.), Papilloma of the Kidney 527
Leptomeningitis, Chronic Alcoholic, by W. S. Laurie, M.D., B.S. 588
Letters and other Communications Received from Correspondents, 50, 100, 144, 192, 246, 302, 354, 416, 502, 572, 636.............. 688
Leukæmia, Myelogenic, treated with X-rays, by C. Reissmann, M.D... 379
Light Treatment, History and Development of the, by W. R. Fox, L. *et* L. Mid. R.C.S. (Edin.) (continued from vol. 23, p. 630)...... 13
Liquid Air, Use of in Surgery and Skin Diseases, by T. G. Beckett, L.R.C P., R.C.S. 313
Lister, H. M., M.B., Ch.M., Acute Meningitis following Epidemic Parotitis—Operation—Recovery 12
Litchfield, W. F., M.B., Medical Aspect of New South Wales Educational Commissioners' Report.. 70
——— The Relation of Shiga's Bacillus to the Summer Diarrhœa of Infants 10
Llewellyn, Rees F., M.B., Acetozone Treatment of Typhoid Fever.... 73

Macansh, W., M.B., A Sudden Case of Goitre 323
——— Case of Prolonged Typhoid Fever 213
MacCormick, A., M.D., Hon. F.R.C.S., Presidential Address 145
MacLaurin, C., M.B., C.M., Case of Accidental Hanging 255
MacPherson, J., M.B., B.Sc., Ch.M., Acute Arthritis of Infants....... 23
Maitland, H. L., M.B., Ch.M., Some Interesting Surgical Cases (illustrated) 367
Management of Public Hospitals in New Zealand, by E. Roberton, M.D. 147
Marten, R. H., M.B., Ch.B.(Cantab.), M.R.C.S., L.R.C.P., Surgical Observations in Europe 465
Mastoid, Radical Operation, Result of Treatment, by G. T. Hankins, M.R.C.S. 199
McKay, W. J. S., M.B., Ch.M., 100 Consecutive Abdominal Sections without a Death.............. 586
Medical Appointments, 49, 99, 143, 192, 245, 302, 353, 416, 501, 571, 635 688
Medical Aspect of the New South Wales Educational Commissioners' Report, by W. F. Litchfield, M.B. 70
Medical Ethics, Presidential Address, by G. A. Syme M.S. F.R.C.S.... 503
Medical Notes: Vital Statistics of London, 88; Hospital Collections and Governorships, 47; Patent Medicines Regulations in New Zealand, 48; Hospitals for the Insane in New South Wales, 48; The Dunedin Hospital Trustees, 48; Sanitary Inspectors' Association, 48; The Victoria Convalescent Home, 48; Hospital Saturday Fund, 98; An Inebriates' Retreat, 98; Charitable Donations and Bequests, 47, 98, 140, 300, 351, 414, 499, 634; Women Doctors, 140; Qualified and Unqualified Midwives, 140; Blood Examinations, 140; Railway and Tramway Hospital and Convalescent Funds, 141; Nurse Dismissed for Insubordination, 141; Bovril, 141: St. John Ambulance Association, 141; Japanese Military Medical Service, 141; Friendly Societies, 142; Randwick Asylum, 142; Clinical Afternoon at the Royal Alexandra Hospital for Children, 142; Royal Hospital for Women, Sydney, 160; The Melbourne Quarantine Station, 168; Charitable Donations, 190; Consumptives in Tasmania, 190; Administration of Anæsthetics in Victoria, 190; Donation of a Guinea under Exceptional Circumstances to Melbourne Hospital, 211; Plague in India, 213; X-ray Apparatus for Dunedin Hospital, 224; A Munificent Donation, 243; Sydney Water Supply, 243; Queen's Jubilee Fund, 243; St. John Ambulance Association, 243; Hospital Saturday, Sydney, 244; Old Age Pensions in Western Australia, 244; Sydney Pathological Club, 244, 414; Hospital Collections, 270; A New Morgue for Sydney, 284; Melbourne

Medical Notes—*continued.* Page.
Medical Association, 295; Inebriates Act, Liability of Medical Men Signing Certificates, Victoria, 295; University of Sydney Science Society, 300; Bovril, 300; Treatment of Consumptives in Victoria, 300; St. John Ambulance Association, 300; Hospital Saturday Fund, 300; University of Sydney, 300, 414; Surgical Appliance Aid Society, 300; Auckland Hospital, 301; Hospital for Consumptives, N.S.W., 312; Adelaide Children's Hospital, Street Collection, 335; Inspector-General of Insane, Victoria, and Medical Superintendent Retired, 339; Consumptives' Hospital for Wellington, N.Z., 351; National Association for the Prevention of Consumption, 351; University Dental School, Sydney, 351; Sydney Ladies' Sanitary Association, 352; Amalgamation of State Laboratories in Victoria, 352; Melbourne Milk Supply, 352; District Trained Nursing Society, S.A., 352; Proposed Hospital for Consumptives at Eckersley, N.S.W., 408; The Doyen Serum in Cancer, 412; Australasian Trained Nurses' Association, 414; Electric Light and Power at the Sydney University, 414; Hospital Saturday Fund of New South Wales, 415; Sanatorium for Women in New South Wales, 475; Dental Hygiene, 499; Hospital Saturday, 499; Insanity in New Zealand, 500; Hospital and Charitable Aid Expenditure in New Zealand, 500; Prehistoric Australians, 500; Benevolent Asylum, Victoria, 500; Cemetery Regulations, Breaches of, Melbourne, 500; Albury Hospital, Donation to, 547; Adelaide Children's Hospital Street Collection, 547; Cremation in Tasmania, 588; Royal Society of South Australia, 599; Linnean Society of New South Wales, 606; Lodge Doctors and their Fees, 634; Poisoning by Boric Acid, 634; Child Study, 634; St. John Ambulance Association, 635; Thirlmere Consumptive Home, 686; Linnean Society of N.S.W., 686; Sydney Medical Mission, 686; N.S.W. Civil Ambulance and Transport Corps, 686; the Morgan Thomas Monument 686
Medical Science and Social Problems, Inaugural Address, Medical Congress, Adelaide, by Prof. E. C. Stirling, M.D., F.R.C.S. 417
Medico-Ethical and Medico-Legal, 126, 293, 418, 565 671
Menière's Disease, Case of, by T. Ambrose, M.B., Ch.M. 214
Meningitis, Acute, following Epidemic Parotitis—Operation—Recovery, by H. M. Lister, M.B., Ch.M., and W. J. Fearnley, M.B., B.S. 12
Mental Therapeutics, Position, Use and Abuse of, by J. W. Springthorpe, M.D. 525
Metcalfe, P. H., M.R.C.S., Severe Semi-confluent Chicken-pox, with Multiforme Erythema (illustrated) 28
Metropolitan Hospital Bill for Brisbane 413
Mitchell, R. T., M.B., C.M., Hypnotic Treatment 321
Midwifery, Trend of Modern, by J. R. Purdy, M.B., C.M. 309
Military Intelligence 99, 416, 570
Mitchell, J. T., Presidential Address, The Relation of the Medical Profession to the General Public 51

Page.
Month:—The Sydney Milk Supply, 28; The Maintenance of Charitable Institutions in Queensland, 29; The Treatment of Pulmonary Tuberculosis in Western Australia, 29; Women Doctors as Hospital Residents, 29; The New Coroners' Act, 29; The Declining Birth Rate, 78; A State Sanatorium for Consumptives in Victoria, 78; Treatment of Indigent Consumptives in Tasmania, 78; Infantile Mortality in Brisbane, 79; The Sydney Meat Supply, 79; Treatment of Infectious Diseases in Brisbane, 80; Physically and Mentally Deficient Children, 80; Defects in the New South Wales Poisons Act, 121; The Treatment of the Insane in Victoria, 121; Proposed Maternity Hospital for Hobart, 121; Royal Alexandra Hospital for Sick Children, Sydney, 122; Infant Mortality in Queensland, 122; Milk as a Purveyor of Disease, 122; The Australasian Medical Congress, Adelaide, 1905, 166, 328, 387; The Treatment of the Insane in New South Wales, 166; Hospital Administration in Melbourne, 166; The Australian Natives' Association Again, 166; District Nursing in Hobart, 167; The Liverpool Asylum for Consumption, 167; The Adulteration of Leather, 168; The Royal Alexandra Hospital for Children, Sydney, 168; The Australian Natives' Association in New South Wales, 219; Patent Medicines in New Zealand, 219; Proposed Hospital Tax in Queensland, 220; Queensland Hospitals Aid Association, 220; Royal Society of New South Wales, 220; The Ethel Pain Memorial in Old Cairo, 220; The Grimwade Prize for Industrial Chemistry, 221; Treatment of Consumptives in New Zealand, 221; Reception House for the Insane in Melbourne, 221; International Congress for Radiology and Ionization, 274; Registration of Massage Nurses, 274; Melbourne University Bacteriological Laboratory, 274; Insanity in Victoria, 275; Friendly Societies and Hospitals, 275; An Infectious Diseases Hospital for Hobart, 275; Patent Medicine Regulations in New Zealand, 275; Medical Men and Railway Travelling, 276; Registration of Still Births, 276; Prevention of Tuberculosis in Melbourne, 276; Royal Victorian Trained Nurses' Association, 276; Prescribing Opticians, 328; Protection of Infant Life in Victoria, 328; Licensing of Nursing Homes in New Zealand, 329; Sanatorium for Female Consumptives in New South Wales, 329; Spitting Nuisance, 329; Law and Medicine, 329; Jubilee of the Melbourne University, 330; The Housing Problem in Tasmania, 330; Join a Medical Defence Association, 330; Crisis at Brisbane Hospital, 330; Sir Philip Sydney Jones Portrait Fund, 387; Adulterated Bread, 387; An Epileptic Colony in Victoria, 388; Telephone Mouthpieces and the Transmission of Disease, 388; Secret Commissions to Medical Men, 388; Milk Delivery in Australian Cities, 474; Milk Adulteration, 474; Medical Examinations in Life Assurance, 474; Hospital Maintenance in Queensland, 475; Female Medical

Month—*continued* Page.
Students and the Study of Anatomy, 475; Sanatorium for Women in New South Wales, 475; Federal Medical Legislation, 550; Medical Evidence in the Law Courts, 550; School Hygiene, 550; Consumptive Immigrants in New Zealand, 551; Queensland Hospital Bill, 551; Leprosy in Australia, 551; The Study of Tuberculosis in America, 597; The National Association for the Prevention of Tuberculosis, 597; A Sanatorium for Consumptives in Tasmania, 598; The Cox Eureka Consumptive Cure, 598; The Medical Curriculum in Melbourne, 599; Alcoholism and Insanity, 599; The Reformation of Inebriates, 663; Prescribing Chemists, 663; Alcohol in Patent Medicines, 664; The Sydney Abattoirs, 664; The Coroner and the Adelaide Hospital, 665; Infantile Mortality, 665; Death of Dr. David Wield 665
Morrison, W., M.D., The Summer Diarrhœa of Children 8
Munro, W. J., M.D., the Spirochæta Pallida of Shaudinn and Hoffmann (illustrated) 637

Nash, J. B., M.D., Paths of Infection in Localised Suppuration Within the Female Pelvis 65
——— Absence of Ascending, Transverse and Descending Colon and of Sigmoid Flexure 210
National Association for the Prevention of Consumption......293, 351
Needle, a Travelling, by T. G. Beckett, L.R.C.P. 116
Nerve Disease, Treatment of Chronic, by G. E. Rennie, M.D., M.R.C.P. 359
Nerve Suture, Case of Secondary, by F. Suckling, M.B. 593
Newland, H. S., M.B., M.S., Extroversion of Bladder, Treatment by Implantation of the Ureters into Rectum 584
Nolan, H. Russell, M.B., Ch.M., Case of Tracheal Hæmorrhage 109
Notes and Queries.............. 243
Nutmeg Poisoning, Case of, by H. Laurie, M.D. 158

Obituary, 46, 96, 126, 189, 228, 301, 343, 394, 496, 556, 632.......... 680
Œdema, Case of Angio-Neurotic, by G. P. U. Prior, L.R.C.P. 117
Œsophagus, Foreign Body in the, by E. D. Aubin, M.B., B.S. (illustrated) 160
One Hundred Consecutive Abdominal Sections Without a Death, by W. J. S. McKay, M.B., Ch.M. 586
Otitis Media, involving Lateral Sinus and Temporo-Sphenoidal Lobe, by Jas. Cox, M.D. 579
Ovarian Tumours, Notes on Three Interesting, by J. A. G., M.B. *et* L. Mid. L.R.S. 155

Pain, E. M., M.B., Ch.M., Injury to Thoracic Duct 592
Papilloma of Kidney, by A. A. Lendon, M.D. (Lond.).......... 527
Parker, W. R., L.D.S., Dental Decay and Hygiene................. 257
Personal Items, 48, 98, 142, 190, 244, 301, 353, 415, 500, 571, 635...... 687
Placenta Prævia, Five Cases of, by E. C. Hall, M.D., Ch.M. 21
Poulton, B., M.D., Fatal Case of Tetanus 24
Presidential Address, by A. MacCormick, M.D., Hon. F.R.C.S.... 145

Reviews, &c.—*continued.* Page.
Presidential Address, by C. W. Hamilton, M.D., B.Ch. 355
Prior, G. P. U., L.R.C.P., Case of Angio-Neurotic Œdema 117
Proceedings of Australasian Medical Boards, 50, 99, 144, 192, 245, 302, 354, 416, 502, 572, 636.......... 688
Provident Annuity Society for Medical Men, Scheme for, by J. H. G. Drummond, L.R.C.P........... 113
Public Health:
  New South Wales, 43, 91, 136, 185, 236, 294, 344, 405, 496, 567, 631
  Victoria, 43, 137, 294, 344 406
  Queensland, 43, 91, 137, 187, 238, 295, 345 632
  West Australia............ 44, 138
  South Australia, 44, 137, 295, 344 405
  Food Adulteration in Queensland 86
  New Zealand.......... 91, 187, 345
  Plague on the Clarence River, New South Wales... 91, 138, 238
  Plague, Report of Board of Health on a Third Outbreak in Sydney 93, 186, 236, 296 406
  Tasmania, 137, 187, 345........ 632
  Plague at Newcastle, New South Wales 185, 237, 346
  Plague in New South Wales..... 346
Puerperal Sepsis, by W. Sloss, M.B., Ch.B., F.R.C.S................ 203
Pulmonary Phthisis, Sanatorium Treatment of, by R. E. Weigall, M.B. 157
Pulmonary Tuberculosis from King's Tableland, Cases of Arrested, by M. McIntyre Sinclair, M.D., D.P.H. 308
Purdy, J. R., M.B., C.M., Trend of Modern Midwifery 309
Pyæmia, Two Cases following Chronic Purulent Otitis, by Richard Arthur, M.D. 63

Quadruplets, a Case of, by L. W. Roberts, M.R.C.S. 269
Quinine, Soluble Sulphate, in Ophthalmic Practice, by J. L. Gibson, M.D. 366

Ramsay, J. E., M.B (Lond.), Massive Subcutaneous Injections of Saline Solutions in Puerperal Eclampsia 593
Read, W. H., M.B., Ch.M., X-Rays in the Diagnosis of Intrathoracic Morbid Conditions 580
Reissmann, C., M.D., B.Sc., Myelogenic Leukæmia Treated with X-Rays 379
Relation of the Medical Profession to the General Public, Presidential Address by J. T. Mitchell M.D... 51
Rennie, G. E., M.D., M.R.C.P., The Treatment of Chronic Nerve Disease 359
Reports of Other Societies:
  Border Medical Association, 36, 225, 392,.................... 556
  Medical Defence Association of Victoria 125
  N.S.W. Lodge Practitioners' Defence Fund 172, 408
  N.S.W. Medical Union......... 174
  Medical Benevolent Fund...... 175
  Medical Defence Association of Tasmania 175
  Medical Society of Victoria, 176, 225, 281, 334, 391, 555, 605 .. 670
  Sydney Metropolitan Medical Association 228, 670
  Western Suburbs Medical Association, Sydney 228
  Royal Alexandra Hospital for Children, 142, 228, 284, 393, 479, 556 606
  Medical Defence Association of South Australia 282
  Western Medical Association..... 284

Reports of Other Societies—*contd.* Page.
  Australasian Medical Congress, Programme Seventh Session, Adelaide, 393................. 480
  Melbourne Medical Association.. 479
  Sydney Pathological Club...... 670
  The Sydney and Suburban Provident Medical Association 606
Review of Current Medical Literature:
  Obstetrics and Gynæcology, 39, 181, 336.................... 607
  Ophthalmology, 41, 182, 338.... 608
  Neurology and Psychiatry, 42, 183, 339.................... 610
  Medicine 87, 229, 395, 672
  Pathology 88, 231, 396, 673
  Pædiatrics 89, 232, 397, 674
  Surgery 127, 285, 557
  Ear, Nose, and Throat 128, 288
  Therapeutics 129, 287, 558
Reviews and Notices of Books:
  Operative Surgery, by H. W. Allingham................. 25
  Essays on Hysterectomy, by J. Bland-Sutton 25
  Obstetric and Gynæcologic Nursing, by E. P. Davis, M.D. 25
  Questions and Answers on Midwifery, for Midwives, by A. B. Calder, M.B................ 26
  The Nervous Affections of the Heart, by G. A. Gibson, M.D., F.R.C.S. 26
  Our National Recreation Parks, by Nicholas Senn, M.D....... 26
  Essentials of the Diseases of Children, by W. M. Powell, M.D... 74
  Examination of the Urine, by G. A. De Santos Saxe, M.D. 74
  Light Energy: Its Physics, Physiological Action and Therapeutic Applications 74
  The Treatment of Syphilis, by F. J. Lambkin, R.A.M.C. 75
  Diseases of the Gall-Bladder and Bile Ducts, by A. W. Mayo Robson, F.R.C.S., and J. F. Dobson, F.R.C.S. 75
  Malignant Disease of the Larynx, by P. R. W. de Santi, F.R.C.S. 117
  Handbook of Diseases of the Ear, by R. Lake, F.R.C.S......... 118
  Essentials of Diseases of the Ear, by E. B. Gleason, M.D. 118
  Justices' Manual and Police Guide, by D. Stephen 118
  Medical Electricity, by H. L. Jones, M.D., F.R.C.P............... 118
  Surgical Notes from Four Continents and the West Indies, by N. Senn, M.D. 118
  The Preparation and After-treatment of Sectional Cases, by W. J. Stewart McKay, M.B., M.Ch., B.Sc. 162
  Textbook of Obstetrics, by Prof. B. C. Hirst 162
  Manual of Diseases of Women and Uterine Therapeutics, by H. MacNaughton-Jones, M.D..... 163
  Practical Application of Röntgen Rays in Therapeutics and Diagnosis, by W. Allen Pusey, M.D. 163
  Manual of Surgery, by Alexis Thomson, M.D., F.R.C.S., and A. Miles, M.D. 163
  Legal Medicine (in India) and Toxicology, by Major C. Barry, I.M.S. 163
  Handbook of Surgery, by F. R. Griffith, M.D. 163
  Diagnosis and Modern Treatment of Pulmonary Consumption, by A. Latham, M.D............. 215
  Epilepsy and its Treatment, by W. P. Spratling, M.D. 215
  Textbook on the Practice of Medicine, by J. M. French, M.D. 216
  Nutrition of the Infant, by R. Vincent, M.D. 216
  Dental Surgery, by A. W. Barrett, M.R.C.S. 270

Page.
  Operative Surgery, by H. J. Waring, M.S., M.B........... 270
  Tropical Light, Effects on White Men, by Major C. E. Woodruff, M.D. 271
  Legal Medicine and Toxicology, edited by F. Peterson, M.D., and W. S. Haines, M.D....... 271
  Naked Eye Anatomy of the Human Teeth, by T. E. Constent, L.R.C.P. 324
  Stomach, Diseases of, and Surgical Treatment, by A. W. Mayo Robson, F.R.C.S., and B. G. A. Moynihan, F.R.C.S. 324
  American Year-Book of Medicine and Surgery, edited by G. M. Gould, M.D. 324
  Diseases of Intestines and Peritoneum, by Dr. H. Nothnagel, edited by H. D. Rolleston, M.D., F.R.C.P. 325
  Asepsis, Principles and Practice of, by A. S. Vallack, M.B., Ch.M. 325
  Plague, a Treatise on, by W. J. Simpson, M.D., F.R.C.P. 382
  Lateral Curvature of the Spine and Pelvic Deviations, by R. Barwell, F.R.C.S............. 384
  Children, Manual of Diseases of, by J. Burnet, M.B., M.R.C.P. 384
  Mucous Membranes, Normal and Abnormal, by W. Stuart-Low, F.R.C.S. 471
  Personal Hygiene, edited by W. M. Pyle, M.D. 471
  Intestinal Surgery, by L. A. Bidwell, F.R.C.S. 471
  Pocket Medical Formulary, by W. M. Powell, M.D. 546
  Appleton's Medical Dictionary, edited by F. P. Foster, M.D... 546
  Electrostatic Modes of Application, Therapeutics, and Use of Röntgen Ray, by W. B. Snow 546
  Operative Surgery, by J. D. Bryant, M.D. 547
  Poisonous Plants of all Countries, by A. B. Smith.............. 547
  Cancer and its Treatment, by A. W. Mayo Robson, D.Sc., F.R.C.S. 547
  Modern Materia and Therapeutics, by A. A. Stephens, M.D....... 547
  Martindale and Westcott's Extra Pharmacopœia 547
  American Edition of Nothnagel's Practice—Diseases of the Blood —Edited by Alfred Stengel, M.D. 594
  A Textbook of Legal Medicine, by F. W. Draper, M.D. 594
  A Textbook of Materia Medica, by R. A. Hatcher, M.D....... 594
  A Manual of Surgery, by Wm. Rose, M.B., B.S., F.R.C.S., and A. Carless, M.S., F.R.C.S. 660
  An Introduction to Pharmacognosy, by S. Ely Jeliffe, M.D., Ph.D. 660
  Physical Deterioration: its Causes and the Cure, by A. Watt Smyth 660
  The Theory and Practice of Medicine, by F. T. Roberts, M.D., B.Sc., F.R.C.P. 660
Roberton, Ernest, M.D., the Management of Public Hospitals in New Zealand 147
Roberts, L. W., M.R.C.S., A Case of Quadruplets 269
Robertson, W. N., M.B., C.M., Aural Discharges 59
Royal Navy, Regulations for the Entry of Surgeons for Temporary Service 95

Savage, V. W., M.B., Ch.M., Anti-Diphtheritic Serum, its use in 37 Cases 265
Schalit, M. A., B.Sc., M.D., Bipolar Faradic Current in Treatment of Ovarian Pain............... 266

Page.

Scott, G. A., M.B., Ch.M., Diagnosis of some of the Commoner Inflammations of the Eye 537

Shuter, R. E., M.D., Appendicitis from Point of View of General Practitioner 541

Sinclair, M. McIntyre, M.D., D.P.H., Cases of Arrested Pulmonary Tuberculosis from King's Tableland 303

Sloss, W., M.B., Ch.B., F.R.C.S., Puerperal Sepsis 203

Smith, E. Temple, M.B., M.R.C.S., Double Ethmoidal Suppuration—Operation—Revovery 159

Spirochæta Pallida of Shaudinn and Hoffmann, by W. J. Munro, M.D. (illustrated)) 637

Spring Hill Fever, by E. Hirschfeld, M.D. 101

Springthorpe, J. W., M.D., Position, Use and Abuse of Mental Therapeutics 525

Starch, Determination of, Content in Barley Water and Rice Water, by C. E. Corlette, M.D., D.P.H 1

Starch Digestion in Young Infants, Review of the Subject, by C. E. Corlette, M.D., Ch.M., D.P.H. .. 1

Steell, M.B., Ch.M., L.R.C.P., Systemmetrical Gangrene in General Paralysis of the Insane.. 20

Stirling, E. C., M.D. F.R.C.S., Inaugural Address, Medical Congress—Medical Science and Social Problems 417

Suckling, F., M.B., Secondary Nerve Suture 593

Page.

Summer Diarrhœa of Children, by W. Morrison, M.D. 8

Summer Diarrhœa of Infants, the Relation of Shiga's Bacillus to the, by W. F. Litchfield, M.B. ... 10

Suppuration, Ethmoidal—Operation—Recovery, by E. Temple Smith, M.B., M.R.C.S. 159

Suppuration Within Female Pelvis, Paths of Infection in Localised, by J. B. Nash, M.D. 65

Surgical Aids and Makeshifts, by E. Ken Herring, M.R.C.S. 110

Surgical Cases, Some Interesting, by H. L. Maitland, M.B., Ch.M. (illustrated) 367

Surgical Observation in Europe, by R. H. Marten, M.B., Ch.B. (Cantab.) 465

Syme, G. A., M.S., F.R.C.S., Medical Ethics—Presidential Address ... 503

Swift, H., M.D. (Cantab.), Tetanus in Children 251

Thoracic Duct, Injury to, by E. M. Pain, M.B., Ch.M. 592

Tetanus, Fatal Case of, by B. Poulton, M.D. 24

——— by T. B. Ashton M.B ... 24

Tetanus in Children, by H. Swift, M.D. (Cantab.) 251

Tetanus, Two Cases of, by W. T. Hayward, M.R.C.S. 253

Turner, A. Jeffries, M.D., On the Management of the Diseases of Infancy (illustrated) 371

Page.

Typhoid Fever, a Case of Prolonged, by W. Macansh, M.B. 213

University Intelligence :—
  Sydney 45, 634, 484
  Melbourne 45, 343, 684

Uric Acid Conditions treated by Haig's Diet, by A. W. G. Cribbe, L.R.C.P. 531

Uterus, Retrodeviations of the, by J. G. Wilson, M.D., F.R.C.S. 650

Vaccination, Unsatisfactory Position of, in the Commonwealth, by W. Cleaver Woods, M.D. 206

Viburnum Prunifolium, by A. Andrews, M.R.C.S. 468

Watson, F., M.B., Ch.M., Barcoo or Belyando Fever 212

Weigall, R. E., M.B., Addison's Disease in a Youth 545

——— Sanatorium Treatment of Pulmonary Phthisis 157

Welsh, D. A., M.D., B.Sc., Recent Observations on Cancer and Tumour Growth 432

Wilkinson, W. Camac, Nine Cases of Pernicious Anæmia 639

Wilson, Prof. J. T., Absence of Ascending, Transverse, and Descending Colon and of Sigmoid Flexure. 210

Wilson, T. A., M.B., An Unusual Case of Hydatid of Liver 469

Wilson, T. G., M.D., F.R.C.S.E., Retrodeviation of the Uterus 650

X-Rays in Diagnosis of Intrathoracic Morbid Conditions, by W. H. Read, M.B., Ch.M. 580

W. E. SMITH,
Bridge Street, Sydney.

9566
BARTON MEDICAL LIBRARY
NOV 20 1906

AUSTRALASIAN MEDICAL GAZETTE.

A REVIEW OF THE SUBJECT OF STARCH DIGESTION IN YOUNG INFANTS.

By **Cyril E. Corlette**, M.D., Ch.M. (Syd.), D.P.H. (Camb.), Hon. Assistant Surgeon and Hon. Assistant Pathologist (Lab. Path. Chem.), Sydney Hospital.

In books dealing with the dieting of children, statements are not infrequently made to the effect that foods containing starch are to be avoided in the diet of young artificially-fed infants. In the next sentence, such materials as barley-water, rice-water, bread-jelly, and the like may be recommended for the same children. From their mode of preparation it appeared to me that these would contain starch, in spite of its prohibition, and it seemed desirable to find out how much of it there really was in some of these preparations as usually made. It did not appear that any one had yet published the results of analytical investigation of the point, so some five years ago I thought it sufficiently interesting to settle it for myself by a series of analyses. I was enabled to carry out this work in the Laboratory of Pathological Chemistry, University College, London, by kind permission of Professor Vaughan Harley, director of the laboratory, to whom I am also indebted for many other courtesies.

The starch was determined both in barley-water and rice-water. For making barley-water, I took what seemed, on study of recipes, to be the one most commonly advised. This was as follows:—"Take two heaped teaspoonfuls of pearl barley, wash it, and put it in a pint of cold water; then put it on the fire and simmer till the whole is reduced to only ⅔ pint. This is then strained, and the liquid part constitutes the barley-water." I found it convenient to make less at a time than this whole quantity, but I used the same process, using a third of the amounts of grain and of water. Two teaspoonfuls of pearl barley were found to give an average weight of 18 grammes, and ⅓ of this, or 6 gm., was washed and added to ⅓ pint (actually 189 cc. were used) of cold water. This was placed in a glass beaker on which a mark was made at the ⅔ level., *i.e.*, at 126 cc. It was then gently heated to simmering point, and kept there till it had evaporated down to the 126 cc. mark. The whole was then strained, when about 90 cc. of a faintly opalescent, freely fluid barley-water was obtained, the remaining 36 cc. being represented by the moist and swollen grains of barley. The actual yield of barley-water in eight experiments was very uniform, being as follows:—90 cc., 92 cc., 88 cc., 90 cc., 93 cc., 88 cc., 94 cc., 95 cc., in order. The barley-water was then analysed for its starch content by Von Asboth's method,* which I need not here describe. Before doing this, the barley-water was gently boiled for about 10 minutes, and maintained at a suitable volume (100 cc.) by adding sufficient water. This was in order to make it quite certain that all starch present was gelatinised, a condition essential to success with Von Asboth's method. The results of eight barley-water experiments are shown in tabular form as follows:—

TABLE I.—PERCENTAGE AMOUNT OF STARCH IN BARLEY-WATER.

No. of experiment ..	1	2	3	4	5	6	7	8
Percentage of starch found	2·00	2·28	2·34	2·02	1·94	1·98	1·84	2·0

The mean of these results gives us an average of 2·03 per cent. of starch in barley-water as made by the typical method.

Now, how much starch would this represent as obtained from two teaspoonfuls (18 grammes) of pearl barley? This is shown in Table II.

TABLE II.—TOTAL AND PERCENTAGE AMOUNT OF STARCH OBTAINED FROM 18 GMS., OR TWO TEASPOONFULS OF PEARL BARLEY.

No. of experiment ..	1	2	3	4	5	6	7	8
Yield of starch from two teaspoonfuls —	gm. 5·4	gm. 6·3	gm. 6·18	gm. 5·46	gm. 5·43	gm. 5·24	gm. 5 19	gm. 5·7
Yield of starch for every 100 gm. barley	30·0	35·1	34·3	30·3	30·1	29·1	28·8	31·6

When worked out, this gives us an average yield of 5·61 grammes (86·5 grains) starch in the barley-water from two teaspoonfuls pearl barley. Every 100 parts by weight of barley yield an average of 31·1 parts by weight of starch in the barley-water. Pearl barley contains about 78 per cent. of its weight as starch, and, calculating from this, we find that 40 per cent. of the total amount of starch in the original barley is extracted in the above process, and enters into the barley-water which is strained off for use.

Two experiments were made with rice-water, using an exactly similar recipe. Two heaped teaspoonfuls weighed on an average 21 gm.

---

*Von Asboth's method for starch estimation will be found described in the *Analyst*, vol. xii., p. 138.

A third of this, or 7 gm., was used for each experiment. When the whole had simmered down to 126 cc. mark, the beaker was removed and the liquid strained off through muslin into a measure. The amount of rice-water obtained was 70 cc. in the first experiment and 75 cc. in the second. Rice swells up more than barley, taking up more water, and, therefore, leaving less to strain off as "rice-water." It will be seen in Table III that the rice-water is quite as rich in starch as the barley-water, but the smaller yield of rice-water from a given quantity of rice causes a smaller total of starch extracted, as seen in Table IV.

TABLE III.—PERCENTAGE AMOUNT OF STARCH IN RICE-WATER.

No of experiment	1	2
Percentage of starch found ..	2·26	2 24

Mean percentage, 2·25.

TABLE IV.—TOTAL AND PERCENTAGE AMOUNT OF STARCH OBTAINED FROM 21 GM., OR TWO TEASPOONFULS OF RICE.

No. of experiment	1	2
	gm.	gm.
Yield of starch from 2 teaspoonfuls..	4·76	5·05
Yield of starch for every 100 gm. rice	2·27	24·05

This means an average yield of 4·9 grammes (75·6 grains) starch in the rice-water from two heaped teaspoonfuls rice. Every 100 parts by weight of rice yields an average of 23·3 parts by weight of starch in the rice-water. Rice contains about 79 per cent. of its weight as pure starch, and, calculating from this, we find that 29·5 per cent. of the total amount of starch in the original dry rice is extracted in the process. Since 40 per cent. is obtainable from barley-water, it appears that, weight for weight, rice is a much less economical raw product to use than barley.

NOTE 1.—Since this work was carried out, I have found an analysis of a specimen of barley-water quoted by Holt ("Dis. of Infancy and Childhood," ed. 3, p. 162.) The starch was given as 1·63 per cent., but method of preparation and of analysis was not stated.

NOTE 2.—Arrowroot and cornflour (maize starch) contain from 87 to 97 per cent. starch. A sample of arrowroot bought from a grocer and examined by me contained 10 per cent. moisture and 90 per cent. starch. Starch mucilage B.P. contains 12 grains commercial starch added to each ounce of water, and, on the basis of 90 per cent. dry starch and 10 per cent. water in the material, this works out at 2·04 per cent. starch in mucilago amyli, B.P. It will be seen that this is the same strength as the barley-water in my analyses.

In view of these experimental results the statements referred to in my first paragraph require some critical examination, and I think that further consideration will show that they require some modification before they can be accepted; for though it is unquestionable that the carbohydrate moiety of mother's milk is present as lactose and not as starch, still I think that we shall find that there is really not adequate evidence to support the broad, unqualified statement sometimes made that these infants "cannot digest starch."

Let us first enquire what is the connotation of the term "starch." It is, of course, a carbohydrate, and one of the group called polysaccharids. It occurs in plants and seeds, and may be extracted in a pure state as a powder consisting of fine grains, which vary greatly in shape and appearance, according to the plant from which they are derived. These grains are insoluble in cold water. In structure they are supposed to consist of two components—starch-granulose and starch-cellulose; and of these it is the starch-granulose which changes into dextrin and sugar, and dissolves, when mixed under proper conditions, with diastatic ferments. On mixing starch-grains with hot water they swell up, burst their framework of starch-cellulose, lose their structure, and form a sticky mass known as "starch-paste." If this be boiled, the paste becomes gradually thinner, and is converted into the form known as "soluble starch" and by various other names. This is the precursor of the dextrins, the intermediaries in the process of conversion of starch into malt sugar. We all know that soluble starch is quickly converted into dextrin and malt sugar (maltose) by various amylolytic ferments. The action of moist heat, superheated steam and dilute acids will also convert starch in the same way with a rapidity and completeness which varies a great deal according to particular circumstances.

It is important to remark here that the word "starch" includes both raw and soluble starch in its meaning, as well as the transitional half-boiled "paste." The point of this lies in the fact that unaltered raw starch is not so easily converted by diastatic ferments as it is when boiled, and more or less changed into soluble starch, or otherwise altered in structure, as by baking.

Further, I have mentioned that starch-grains vary physically according to their origin. So, too, do they appear to vary in the facility with which they are changed by a diastatic ferment. These differences only obtain in connection with raw starch, as heating, especially boiling, changes and obliterates distinctions. The variations are probably due to the relations of the starch-cellulose to the granulose in the respective grains. Jacobi[1] quotes observations by Solera to the effect that potato starch was the most easily acted on; then came maize starch and wheat starch in order. Rice starch was the slowest.

We can, therefore, now realise that what may be a true statement concerning one state or stage or variety of starch is not necessarily true of starch in its general sense.

Having thus disposed of preliminaries, we may proceed to examine the authority for statements made about starch in its relation to the diet of young infants. We may take the reasons quoted from physiological sources first. Enquiry shows that there is apparently a tendency to quote authorities without much evidence of personal acquaintance with the original reference. However, we find that the usually quoted authorities for statements on the subject are Korowin (a Russian) and Zweifel, and to these may be added a less well-known reference, a paper by Schiffer. We may begin with Schiffer,[2] whose communication will be found in *Reichert's Archiv. f. Anat. u. Physiol.*, 1872, p. 469. He enclosed starch-paste in bags, and allowed infants to suck them for five minutes. There were only three cases in new-born infants, the eldest of these being two hours, the youngest a few minutes old. In all three, chemical tests proved that sugar was produced from the starch. Similar results were obtained with infants 16 days old and two months old, but apparently the change was more active. Control experiments were made with the starch, proving that it was originally sugar free.

Korowin[3] published a summary of his work in a preliminary paper in the *Centralblatt f. den Med. Wissenschaften*, 1873, p. 261-262. With the juice of the parotid he found that starch-paste was readily converted into sugar in the first days of life, and he found that the more developed the infant the stronger was the ferment action. With regard to the pancreas, he found that it showed "no power of forming sugar in the first months of life." He states that his experiments in both cases were numerous, and promised a further detailed communication, but this I have not come across, nor found noted in any reference.

Zweifel's[4] original paper was in the form of a pamphlet of 47 pages, published in Berlin in 1874, which I have not been able to obtain, but a full abstract appeared in the *Centralbl. f. d. Med. Wissensch.*, 1874, p. 939-940. In the case of the parotid, an extract of the gland was made, and he found that an amylolytic ferment existed even before birth, and that in all infants parotid extract always converted starch-paste energetically into sugar. The vigour of the action was diminished somewhat in gastro-intestinal diseases, but not to any considerable extent. Experiments with extract from the submaxillary glands invariably failed to convert starch. As regards the pancreas, up to the end of the first month he found no amylolytic ferment, but implies that he found it after this period. He remarks that in two cases of diarrhœa he found also absence of both the peptonising and the fat-splitting ferment. It is manifestly important to note this latter observation before forming a general inference.

In none of these papers is it disclosed whether the infants had been previously on a purely milk diet or whether any starch-containing foodstuff had been administered, and, if so, for how long. As it has a bearing on the question discussed, I ask you to note this carefully in view of later discoveries as to the adaptive manufacture of various ferments in relation to diet administered.

The next, and really the most important reason for the statement that starch is not digested, or not properly digested, in young infants rests on the observation that they frequently show signs of illness when fed with arrowroot, cornflour, etc., and to many minds this is essentially a result of the starch. There seems to be clinical foundation for the statement that such a diet is apt to be followed by disturbance of health. Let this be admitted, if you like, as clinically a dry *post hoc* fact, though, of course, it is conceivable that some might dispute it. However that may be, it matters little how far it may or may not be a correct statement; for notwithstanding such an observation, it would be manifestly illogical to conclude in general terms that because disturbances of digestion or disturbances of nutrition may occur unusually often in (say) arrowroot-fed infants, therefore "starch is indigestible," and that it is a noxious element of diet in young infants. The proof lies in the undoubted fact that instant improvement may occur by re-arranging or modifying the diet while it continues to hold much starch, but differently presented, *i.e.*, as soluble starch, carefully prepared, as in barley-water ; for it is a matter of common knowledge that barley-water is very largely employed as a therapeutic or dietetic aid in gastro-intestinal disturbances of infants ; and I have shown that barley-water contains 2 per cent. of starch. If starch itself, essentially considered, be so dangerous as some appear to think, it is remarkable that the very common practice of giving biscuits and biscuit foods, to say nothing of barley-water, should so often be carried out with apparent impunity. So far as my own observation goes, I should say that quite a large proportion of young infants are given biscuit food—especially certain biscuits advertised to the public as suitable for babies—regularly, from the earliest age at which the subject of experiment can be got to take them ; and yet, on the whole, these infants seem no worse off than others. In this country babies are nearly all breast-fed when possible, and the biscuits these children would get are only an addition to their natural food. I do not know that there is very convincing evidence that this commonly leads to a disturbance of health.

As regards children who are wholly fed by hand, everybody knows that, whether starch is given or not, they will often fall sick ; but, provided that the diet is in all other respects what it should be, I am not so very sure that they really fall sick more often when a little biscuit is introduced as a food-supplement by the relatives, on their own responsibility, according to the suggestion of public advertisements, than they do when a moderate amount of barley-starch is used in its customary form, as the medically-suggested barley-water. If the starch be introduced as a substitute for more natural food, and not merely as a supplement, the conditions are altered, and other questions are introduced. This brings us at once to the admitted fact that harm has resulted to sucklings in connection with a starch-containing diet. Excluding digestive difficulties for the present, I think there is a way of accounting for some of the harm done on a starch diet which has hardly attracted enough notice. Nevertheless, I believe that it very probably forms a considerable factor in the explanation of many of the cases of disturbed health occurring in such infants. The cases in which harmful effects are produced are, as I understand, chiefly, or at any rate largely, those in which starch has been given in the form of arrowroot or cornflour, which are favourite ingredients of baby food among certain classes of ignorant people, as, for instance, in English factory districts, where mothers have to leave their infants and work during the day. A bottle-food made with arrowroot is cheap ; it looks substantial, and is apt to be considered a good substitute for milk, and used as such to an undesirable extent. Milk contains proteid, fat, sugar, iron, calcium phosphate, calcium citrate and other salts. This is for the double purpose of supplying building material and fuel. I reckon human milk to contain 20 calories and 0·5 gm. proteid to the ounce, which is roughly correct. Cows' milk contains practically double this amount of proteid, but about the same number of energy units per ounce. On the other hand, an ounce of an arrowroot preparation of 5 per cent. strength, without milk, contains only 5·8 calories, no proteid whatever, no iron, no calcium phosphate, no calcium citrate, or any other salts. A food containing baked wheat-flour, such as those made from a biscuit powder, malted or otherwise, could contain much more solid matter, since it does not gelatinise thickly like arrowroot. For this reason a 10 per cent. mixture can easily be used. Such would contain in one ounce 11·2 calories and 0·3 gm. proteid, together with a small amount of inorganic salts, but no citric acid.

An infant cannot take more than a certain bulk of food, no matter of what kind, in the 24 hours, and if this is largely taken up by a single element there is apt to ensue a deficiency of the rest. Therefore, those who use starchy food, and especially arrowroot or cornflour, in the scheme of diet may bring about a diminution of the milk to such an extent that there may arise a starvation of useful salts, tending towards the production of scurvy and rickets. A glance at the table will also show how the fuel value can be affected. Furthermore, it must be carefully noted that there may be also induced a condition of nitrogen starvation, and this would certainly have a decided effect on the health of the child. I draw attention to this because nitrogen starvation is a somewhat neglected subject of thought. It is a well-known fact of physiology that the metabolic activity of the tissues is stimulated by a good supply of proteid and depressed by privation of that element. Moreover, if the proteid supply is small and sinking down towards the minimum, a compensatory extra quantity of calories has somehow to be taken in, since, under the circumstances, it will be required to be burnt up to protect nitrogen waste as far as possible.

For convenience I have worked out a table from data founded on experimental evidence and accepted as trustworthy by various competent authorities. I have calculated it in calories and grammes of proteid represented by the milk quantities, and have placed in juxtaposition the caloric and other equivalents of like quantities of a 5 per cent. arrowroot preparation,[*] which is as strong a one as is ever likely to be employed. Of course I am not contemplating here any reinforcement of the arrowroot by milk or sugar. This strict treatment is necessary when it is purposed to institute comparisons on the lines laid down, though one recognises that in actual practice there may be various degrees of enrichment.

Table [†].—Quantity of milk required per 24 hours by infant at successive periods, with calories of energy and proteid (in grammes) represented thereby, with value of similar amounts of 5 per cent. arrowroot preparation compared :—

Period.	Quantity in ounces.	Calories in milk.	Calories in arrowroot preparation.[*]	Proteid in milk.	Proteid in arrowroot preparation.
3rd to 7th day ..	10-15	200-300	58-87	5-8	none
2nd and 3rd weeks ..	15-30	300-600	87-174	8-15	none
4th and 5th weeks ..	22-32	440-640	127-185	11-16	none
6th week to 12th week	24-36	480-720	139-208	12-18	none
3rd to 4th month ..	28-38	560-760	162-220	14-19	none
5th to 9th month ..	33-42	660-840	191-243	16-21	none
9th to 12th month ..	37-45	740-900	214-261	19-23	trace

In addition, it has been already mentioned that there will be no mineral or organic salt in the arrowroot preparation. The comparisons shown in the table illustrate my previous remark that there is no need to assume that bad results on an arrowroot diet come necessarily from the reason that starch is ill absorbed. If every grain were absorbed we might still expect bad results if milk is to any considerable extent replaced by pure starch, from three several causes—(*a*) fuel deficiency, (*b*) proteid deficiency, (*c*) saline deficiency.

I think that our knowledge of the pancreas and of the physiology of digestion has in these days reached a stage which should make us pause before accepting the results of Korowin and Zweifel as sufficient grounds for affirming that the pancreas of young infants has little or no power of secreting the amylolytic ferment, and thereby taking its part in starch digestion. I have already adduced evidence to show that there is insufficient proof that starch is not absorbed or is noxious in very young babies, and I think I have shown how ignorant misuse of starch as a material might indirectly cause mischief not dependent on inefficient assimilation of what was supplied.

As for the parotid, we have seen that our old authorites all agree in finding its secretion actively amylolytic. I do not think that too much stress should be laid on this, as if we had found here the operative agent on which the infant depends, and must depend, if starch is administered. Such an idea is extremely improbable. It is a matter of common observation that very young infants do not secrete much saliva, whether parotid or otherwise. Next, if we can infer correctly by analogy from comparative physiology, we must doubt whether either adult or infant would secrete much parotid saliva with a fluid food. Glinski[5] has shown that in dogs parotid secretion only occurred in response to dry food. Exhibition of moist food could not excite any flow of parotid secretion, but it produced abundant submaxillary saliva. These results, however, have not been put to experimental test in man.

Further, I have no personal doubt that at least on some diets, in apparently healthy individuals, the amylolytic action of the saliva plays a very minor part in the digestion of the starch. I have proved this to my own satisfaction by a large number of special examinations of the stomach contents removed one hour after a test meal composed of two cups of weak tea and two slices of toast or bread. In such cases the iodine test under the microscope shows that the bulk of the starch appears to be practically unchanged. This is remarkable when one remembers the great rapidity with which amylolysis proceeds in laboratory experiments when conditions are all favourable.

Let us return again to the discussion of the pancreas. As I have already indicated, very important advances in knowledge on this subject have been made within the past 30 years, and especially during the latter part of the period, where the work of Pawlow[6] and his assistants marks an epoch in the history of the physiology of digestion. Necessarily, their experiments were all made with animals; but to cavil at this is to question the uniformity of nature, and to fly in the face of experience. I will now proceed to quote from their results some matter bearing on the subject under discussion. In beginning his reference to the pancreas, Pawlow says: "Here the adaptation of the secretion to the nature of the requirements is beyond all doubt." As one of his illustrations, he tabulates an instance of the variation of pancreatic juice from experiments by Walther. With a diet containing equal amounts of nitrogen, one being constituted by 600 cc. milk and containing no starch, the other consisting of 250 gm. bread and containing much starch, the total number of units of amylolytic ferment secreted with the milk meal was only 432, but with the bread—that is, the starch-containing diet—no less than 1601 units were developed. Further, it was found that when in feeding animals the kind of food is altered, and the new diet maintained for a length of time, the ferment content of the pancreatic juice becomes from day to day more and more adapted to the requirements of the food. A prolonged experiment is quoted which showed that, starting with a pancreas trained to secrete a very strongly proteolytic juice, the proteid-digesting power was gradually reduced to *nil* by changing from a flesh diet to one of milk and bread. At the same time the amylolytic ferment increased. Pawlow also records that when, under the influence of a given diet, this or that condition of the pancreas had been established in experiment animals in characteristic form, they were able by altering the feeding to reverse it several times in one and the same animal. It was found that the change in diet was followed by altered properties of the juice with an amount of rapidity which varied in different individuals. In some, the adaptation process is slow, and it is stated that in these latter animals an abrupt transition from one *régime* to a different one can often produce serious illness.

---

[*] A 5 per cent. arrowroot preparation is 2½ times the strength of starch mucilage B.P. or of ordinary barley-water. See my preceding paper.

[†] The first and second columns of the table are adapted from Cheadle, *Artif. Feeding and Food Dis. of Inf.*, Ed. 5, p. 31, as after Holt, though slightly different figures are found in the latest (2nd) edition of Holt's *Dis. of Infancy and Childhood*, p. 202.

It seems to me that this last observation is very significant, and has a suggestive clinical bearing. If we find that a sudden introduction of much starch to an unaccustomed and untrained intestine is followed by illness, we are now better prepared to see that perhaps it is the method, and not necessarily the matter, which is responsible; the suddenness, not necessarily the essential incompatibility of starch as such. Perhaps the same amount of starch could be disposed of without difficulty if the pancreas had been more fairly and less unnaturally treated. And I think experience shows that even adults can be disturbed by sudden interruptions of physiological habit. I have little doubt that a sudden exchange of diets between the vegetarian Buddhist of India and the carnivorous Esquimaux would furnish many examples of disaster. It seems that in Pawlow's observation one more possible cause of trouble in connection with starch-feeding of infants has come into view, and we can see how unsafe it may be to reason from the particular to the general. Here one may say, too, in parenthesis, that it is even conceivable that a sudden large dose of cane sugar or of malt sugar would cause trouble if the intestine were untrained and unready to provide a sufficient amount of the inverting ferments. Both these sugars are disaccharids, and at least for the most part require as an antecedent to assimilation to be broken down to dextrose and lævulose, or dextrose and dextrose, respectively, just as lactose is broken down to dextrose and galactose.

Quite recently F. A. Bainbridge[7] has published some results again proving marked adaptive powers in the pancreas. His results concern, not amylopsin, but a ferment of the same group called lactase, whose function is to invert milk sugar (lactose) into galactose and dextrose preparatory to absorption. The results, however, are peculiarly interesting in their relation to the questions raised in the present discussion on starch digestion. Lactase is present in puppies while suckling, but absent in adult dogs. But he found that on feeding adult animals with milk he produced lactase. In two weeks there was abundance of it. His concluding remarks so entirely confirm my own view that I must quote the whole paragraph:—"The influence of diet in modifying the nature and amount of the enzymes secreted by the pancreas has some bearing on the time of the appearance of the ferments after birth. Apparently lactase is not present in the pancreas at birth, although it makes its appearance certainly within ten days, and in all probability earlier. I have made one experiment on the pancreas of a new-born child which had received no milk, and also on three puppies taken away from the mother and killed almost immediately after birth. In both cases extracts of the pancreas contained no lactase, although it was present in the intestinal mucous membrane of the puppies. Here, again, the secretion of lactase by the pancreas occurs in response to the milk diet, and the presumption is that the adaptation takes place in the same way as in adult dogs. If this proves to be the case, it is possible that the same process may occur as regards the amylolytic ferment, and that the absence of this enzyme in early life is due to the lack of an adequate chemical stimulus for its secretion."

I have already emphasised the point that the papers of Korowin and Zweifel do not disclose whether the infants whose pancreates were examined had ever received any starch. Taken in conjunction with the results of the various modern investigations to which I have drawn attention, and particularly from these few, but very interesting studies by Bainbridge, I am certain that we cannot assume from the results of Korowin and Zweifel that the pancreas of young infants lacks the power of secreting amylopsin when necessary.

But there is still more knowledge in our possession regarding amylolysis in the small intestine. Martin and Williams[8] (*Proc. Roy. Soc. Lond.*, 1889, vol. xlv., p. 358) have shown that the bile acts as an auxiliary in promoting the amylolytic action of the pancreatic juice. In Pawlow's laboratory it was found that the energy of the amylolytic ferment was thus increased twofold. According to Martin and Williams this effect is due to the bile salts. Pawlow further states that this augmenting action shows adaptive variations dependent on the nature of the food. Not only does the bile assist thus the amylolytic action, but Pawlow and his co-workers have found a still more important adjunct in the intestinal juice, which appears to contain a special ferment which Pawlow calls enterokinase, whose function is to act in some way on the pancreatic ferments so as to increase their activity. He describes it as a ferment of ferments. It does not appear by itself to be amylolytic in the absence of the pancreatic enzymes. It may be added that Professor Schäfer discussed the existence and properties of this ferment at the 1904 meeting of the British Medical Association at Oxford, and stated that he adopts the same view as Pawlow.

All these recent observations on the augmenting action which normally occurs in the intestine go to show that at least the older demonstrations of amylolytic activity *in vitro* afford probably only a comparatively feeble representation of the functional efficiency of the pancreatic digestion under natural conditions.

But this is not all. In a number of cases the pancreas of dogs has been extirpated, a known amount of starch has been then introduced into the intestine, and the amount absorbed determined. In a series of experiments of this kind, Minkowski and Abelmann[9] found that 60 to 80 per cent. of the starch was absorbed. In another similar series of experiments by the brothers Cavazzani[10], the experimenters found that their animals absorbed about 47 per cent. of the starch. And, as we might expect after this, we find that there are reasons for believing that a certain amount of dextrin may be, or is, taken up in the same way during normal digestion without reaching the stage of maltose. So, also, some maltose is absorbed by the intestine before it has all been inverted to dextrose. The further conversion of the starch, dextrin and maltose is believed in these cases to occur within the intestinal cell.

Of course, it does not follow that what has been said of the auxiliary action of enterokinase, bile-salts, intestinal epithelial cells, etc., is necessarily predicable of young infants. Such an inference would be altogether too much; but, for all that, what has been brought up does tend to show that the bald result of an experiment made *in vitro* with an extract of the pancreas should not be taken to mean too much. It shows that the problem to be solved is not quite simple, and that caution is necessary.

And now, before I close, lest any should have mistaken the real point and drift of this paper, I wish to make it clear that here I have only attempted to discuss a physiological question. Whether young infants ought or ought not to be given starch in some or any form is a different question, not physiological but clinical, and the answer to it must depend on the result of clinical experiment. That is why I have said nothing about malted or dextrinised foods. I am not necessarily unacquainted with their clinical advantages—they are simply not part of the present issue. I will only say this much, that the malted foods contain a good deal of dextrin. (Mellin's Food does, for example, and I have found that it contains no amylolytic ferment.) But dextrin requires the aid of a ferment before it can be changed to maltose. Therefore, if it is administered to an infant, a call is made on the amylolytic function (as with starch), and if the ferment is not present, then it must be left to the intestinal epithelium to take up unchanged, and we have no experimental demonstration of the relative efficiency of this function in young infants. But, as I have suggested in the case of starch, we may be safely content to leave the propriety of dextrinised foods to be settled by the results of clinical experiment.

And, finally, let it not be imagined that I do not know there is only one proper and physiologically correct diet for the young infant—its mother's milk.

This paper was written for the most part about four years ago. I was extremely anxious to get hold of specimens of pancreas from infants who had died within the first month of life, and who had been fed, not from the breast, but with a milk and barley-water mixture. I had hoped thus to test for myself whether, under such circumstances, there really was an absence of amylolytic power, since I had grave doubts as to the validity of the experiments of Korowin and Zweifel in regard to that point. I applied to the local lying-in hospitals, the Benevolent Asylum staff, and wherever else I thought it possible that material could be obtained. Without analysing the reason, I may say that I have obtained no material whatever. Finding, therefore, that there seemed no prospect of my being able to carry on the experimental work which I had projected, I have thought it best to lay before you my views for what they may be worth. I greatly regret the deficiency to which I have drawn attention, but perhaps a better day will dawn with better opportunities for somebody else somewhere in the future and in some other part of the world.

(Read before the New South Wales Branch of the British Medical Association.)

REFERENCES.—(1) Jacobi, *Therap. of Infancy and Childhood*, 1903, ed. 3, p. 71. (2) Schiffer, Reichert's *Archiv. f. Anat. u. Physiol.*, 1872, p. 469. (3) Korowin, *Centralblatt f. den Med. Wissenschaften*, 1873, pp. 261, 262. (4) Zweifel, *Centralbl. f. den Med. Wissensch.*, 1874, pp. 939, 940. (5) Glinski, see Pawlow, "The Work of the Digestive Glands," p. 68 (Thompson, 1902). (6) Pawlow, *loc. cit.*, p 38 *et seq.* (7) Bainbridge, *Journal of Physiology*, vol. xxxi, p. 98, and *Brit. Med. Journ.*, 1904, vol. i, p. 778. (8) Martin and Williams, *Proc. Roy. Soc., Lond.*, 1889, vol. xlv, p. 358. (9) Minkowski and Abelmann, *Centralbl. f. Physiol., Leipz. u. Wien.*, 1890, Bd. iv, p. 522. (10) Brothers Cavazzani, *Centralbl. f. Physiol., Leipz. u. Wien.*, 1893, Bd. vii, p. 217.

I append also some references on the subject which I have not been able to consult personally. They are extracted from R. Hutchison's "Food and the Principles of Dietetics," 1900, p. 452.; (*a*) *Berlin Klin. Woch.*, No. 10, 1895. (*b*) Paper by Carstens at 67 ten Naturforscher Versammlung zu Lübeck, 1895, *Med. Abth.*, p. 161. (*c*) Parker in *Trans. Medical Soc., Lond.*, 1887, p. 319.

THE SUMMER DIARRHŒA OF CHILDREN.

By W. Morrison, M.A., M.D., Senior Hon. Physician, Ballarat Hospital.

I have been asked by our esteemed secretary to open a discussion on the summer diarrhœa of children. The subject is one that is worthy of deep thought, and on the eve of our hot weather I hope that all the members present will take part, giving us the benefit of their experience, and thus helping us to deal with a disease that, during the next few months, will often cause us to regret that we can do comparatively so little to prevent it and stay its ravages. I am not going to take up your time with statistics on the subject—we all know from bitter experience how prevalent it is—nor shall I delay you by quoting figures to prove that during the first two years of life it is most common and most fatal.

For all practical purposes we may divide the disease into two classes—*first*, catarrhal; *second*, inflammatory or dysenteric. The first we often find merges into the second; in fact, most dysenteric cases begin as an ordinary catarrhal diarrhœa.

Ætiology.—Three important conditions are necessary to influence the disease:—(1) Dentition, (2) diet, (3) atmospheric conditions and temperature.

Bagnisky suggests that the actual cause of an attack is the toxic substances from the decomposition products formed by the various intestinal micro-organisms. I have heard medical men argue that dentition has little, if anything, to do with this summer scourge. With this view I cannot agree. Experience has, I am sure, convinced most of us that during summer weather the eruption of each tooth in young children coincides with a fresh outbreak of the disease. It is only natural to expect that this should be so when we consider that at this time there is an altered condition of the whole alimentary canal and an increased glandular activity.

Diet plays an important part. Too much food, improper food and fruits (stone fruit more especially) are responsible for many attacks.

Temperature (*atmospheric conditions*) is the main factor in causing the complaint. A spell of unusually high temperature produces an epidemic of diarrhœa, and we all know how a cool change will often stop the prevalence of the complaint and bring about convalescence in those afflicted by it.

In cases of simple summer diarrhœa, the attack as a rule begins suddenly with vomiting, not persistent, and relaxed motions ; the skin is hot and the tongue coated. The motions in this form are as a rule very offensive, and in infants or bottle-fed children contain curdled masses. Their character changes, and we may note an alteration in colour—at times clay coloured, and again green, with a good deal of mucus. Under suitable treatment (medicinal and dietetic) these cases soon recover.

The *inflammatory* form may be the initial disease, or it may arise from a neglected or obstinate case of simple diarrhœa.

A child who is taken ill with this disease is generally seized with severe vomiting, abdominal tenderness, and has a large evacuation. The vomiting is persistent, lasting from 24 to 48 hours or longer. At first the motion is fæcal, and for some time they are passed with a gush. Gradually they become more scanty, and contain mucus streaked with blood. Often fæcal matter is almost entirely absent, and the motions become a dirty green colour. This, I think, is not bile, but altered blood. Straining is a prominent feature, and in some cases the bowel is prolapsed and bleeds on the slightest touch. The abdomen is tender and rigid ; the tongue is at first thickly furred with the papillæ prominent. As the disease progresses it becomes dry and often glazed. The thirst is intense, the urine becomes scanty, and I have had several deaths in prolonged cases from uræmia, and I found on examination of the urine that it was loaded with albumen. This, in some cases, may account for the convulsions that occur. The emaciation is rapid and extreme.

After such a grave description of the severity of the disease, we turn to what we can do to prevent and treat it when it does occur. The prevention of it lies in good sanitary conditions, pure water and milk. The last—pure milk—in our city is not always obtainable. Milk, as you all know, is delivered in Ballarat only once a day. This, during summer, necessitates that it be scalded. Scalding in most houses spells boiling, and that to an infant spells death, at any rate diarrhœa. In this connection I think we should all use our influence to discourage the use of the favourite feeder—a bottle with a rubber tube. Its construction renders thorough cleansing an impossibility. If a bottle be used at all, the old-fashioned boat bottle with the large nipple is the best. Allen and Hanbury have an excellent feeding-bottle on the market. It has a valve that prevents the contents being too greedily swallowed. I have found amongst the working classes the greatest objection to these bottles because the mother was unable to lay the child down when drinking. The " boat " bottle requires to be held while the child drinks.

Treatment we may consider under three heads—(1) Dietetic, (2) general, (3) medicinal. The first I consider the most important. During the last 25 years the views of the medical profession on this subject have undergone great changes. I can well remember when a student that milk was persevered in, no matter what the condition of the motion was. I can well remember how perplexed I used to be, when acting as assistant to a very skilful physician in England, as to the wisdom of continuing milk when very little else than curds was being passed. When once or twice I dared to act on my own common sense and discontinued milk, I was brought to task for my temerity. These days have gone. I think we are all at one on this question. *Stop milk.*—I personally even go the length of taking infants from the breast till curds are absent from the motions. To replace this we can begin with *weak broths* (preferably mutton), *barley-water* (and I am of opinion that to make this the barley should never be boiled more than from 10 to 15 minutes), *white of egg*. In some cases I found *sherry whey* agree very well with children. Thin water arrowroot (not store arrowroot, which is potato starch) may be tried as a change. Fresh meat juice is taken greedily by some children and does good. I have also given with benefit finely shredded raw meat. Liquid peptonoids I have tried in several cases, but with no good result. Where stimulants are necessary, I prefer brandy to any other spirit, and give it well diluted. To assuage the consuming thirst I give in sips cold water that has been previously boiled.

(2) *General.*—As much fresh air as can be procured and as cool a room as possible are two very important matters. When the skin is hot and dry cool sponging will often produce sleep. I always use a *warm compress* over the whole abdomen. Most mothers seem to believe whisky added to the water out of which the flannel is wrung has some special benefit. Though personally I do not

think it has, in a small matter like this I think it well always to humour the parent. For the tenesmus, a hot sponge applied to the buttocks frequently gives great relief and will often, I think, prevent the protrusion of the bowel. Where it can be borne, a *warm bath* at night soothes the child, and when followed by a small dose of Dover powder often ensures a good night's sleep.

(3) *Medicinal.*—In this, as in the matter of milk, things have undergone a complete revolution. Astringents were the one class of drugs that were held in the highest favour. Last night I looked over an old book, and in many respects a good one, that was a student's manual during my college course, and here I found the whole array, from catechu to hæmatoxylin lauded. I suppose, almost never—at the beginning of an attack at any rate—do we dream of such treatment, whatever may be done later in the attack. For the vomiting, which, as I mentioned, is one of the most troublesome and at times most persistent symptoms, I give calomel in small doses, repeated every half hour, till from four to six powders have been taken. If I have reason to believe the attack is due to such a thing as fruit, and the stomach will retain it, I am still a believer in the benefit of castor oil, given in purgative doses. Vomiting checked, I vary my treatment. In some cases I give antiseptics, salol. liq. hydrarg. perchlor., or occasionally carbolic acid. As a rule I give salines, with or without rhubarb. If pain be very severe I add minute doses of tinc. opii. The salines I continue till the motions become fæcal and of good colour. Then, if too frequent and continuing so, I find bismuth of great service. No one who has tried it can doubt in certain cases the benefit of free lavage of the bowel with sterilised warm water. Where there is severe straining and constant small motions the washing out will procure a period of rest and comfort. Dover's powder, as I mentioned, given at night when there is much restlessness, is good. In mild cases, where the diarrhœa seems due to intestinal indigestion, Angier's petroleum emulsion has given me good results; given in double its dose of sweetened warm water children take it greedily. Only yesterday I saw an obstinate case of diarrhœa that has yielded entirely to this treatment when I failed with everything else. I have tried hazeline ergot, camphor, eucalyptus, and scores of other drugs, but have gradually abandoned them for the few I have mentioned. Trousseau mentions in obstinate cases the use of an injection of silver nitrate, gr. 1 to oz. 1 distilled water. This I have never used, though once I tried sulphate of copper, gr. 4 to water 1 oz., and I think it saved the child's life. When I tried it the child was a living skeleton and in a hopeless condition.

Before closing, I should like to draw our members' attention to strippings for bottle-reared infants. I have lately been giving it a trial. Of course it is nothing new, but it is only lately in Ballarat it has been procurable. Douglas and Sons supply it. It may be given in the following strengths:—At birth, ½ oz. with twice the quantity of barley-water; for the second week, 1 oz. with equal parts of barley-water; at the end of a fortnight, 2 oz. and diminish the diluent. Increase the quantity as the infant grows till it is taking pure strippings.

I must ask you to excuse the disjointed nature of what I have read this evening. I have tried to give my own experience. I do not wish you to consider what I have said as dogma. In many things you will probably differ from me, but if it lead to discussion my object will have been attained.

(Read before the Ballarat Branch of the British Medical Association.)

THE RELATION OF SHIGA'S BACILLUS TO THE SUMMER DIARRHŒA OF INFANTS.

By W. F. Litchfield, M.B., Hon. Assistant Physician and Hon. Physician to Diphtheria Ward R.A. Hospital, Sydney, and P. L. Hipsley, M.B.

In 1897 Shiga isolated his bacillus dysenteriæ from 36 cases of dysentery occurring in Tokio. The bacillus was obtained from the stools, intestinal walls, and mesenteric glands, but not from the blood or spleen. In 1899, Flexner,[1] in the Philippine Islands, isolated an identical bacillus from a number of cases of dysentery among the soldiers there. These results have been confirmed by other observers, notably by Kruse in Germany, and Vedder and Duval in the United States of America. It is now generally recognised that Shiga's bacillus is the cause of the dysentery that is so prevalent in hot countries, and of camp and asylum dysentery. At the same time, however, it is not denied that there is an endemic tropical dysentery that owes its origin to an amœba. More recently, Duval and Bassett,[2] at Baltimore, U.S.A., found the organism in 40 cases of enteritis in children and infants. They claimed that the summer diarrhœa of infants was in the main caused by Shiga's bacillus. Martha Wollstein, working in New York,[3] confirmed their results by finding the bacillus in 39 cases of diarrhœa occurring in young children.

In this paper we wish to record our own experiences with the bacillus in Sydney. We have succeeded in isolating the bacillus in three cases of diarrhœa in children, and have obtained a specific agglutination reaction in a number of other cases. The bacillus was first isolated by one of us in March, 1903, at the Pathological Laboratory of the Sydney University, from the stools of a child aged nine weeks. This child was suffering from an acute attack of so-called gastro-enteritis, and was passing green slime, streaked with blood. The child died about ten days after the onset.

The second and third specimens were obtained by us this year at the Pathological Laboratory of the R.A.H.C. from the stools of two children, both aged five years. These children were passing typical dysenteric stools, with tenesmus. One child never looked acutely ill, and made a good recovery. The other child was more seriously ill, but is now convalescing.

Of the serum reactions we shall speak presently. The method of isolation was as follows:—

A small quantity of the stool was added to a test tube containing two or three drachms of sterile water. Agar tubes were inoculated with the platinum loop and plated out in the usual way. The plates were incubated for 24 hours; stroke sub-cultures were then made on agar tubes from such colonies as were sufficiently discrete. Stab cultures in glucose agar were then made from these sub-cultures. In these tubes, after 24 hours' incubation, the common colon bacillus forms gas, while Shiga's bacillus does not; hence, those cultures which formed gas were set aside, and those that did not were further examined—by culture, morphologically, and by serum reaction—to see if they corresponded with Shiga's bacillus.

The following are the chief characteristics of the organism:—It is about the same size as the typhoid bacillus, but filamentous forms are less common. It is non-motile, stains readily by the ordinary aniline dyes, but is decolourised by Gram's method. It grows well in the ordinary media. It does not ferment glucose, does not give the indol-reaction, and does not coagulate milk. In litmus milk there is first produced a slight acidity, followed in a few days by a decided alkalinity. The final test of the bacillus is its agglutination with the blood serum of patients suffering from dysentery. Our agglutination results were as follows:—The bacillus first isolated clumped when tested with the blood of a woman suffering from an acute attack of dysentery, and also with the blood of a child aged three years, suffering from acute ileo-colitis, the dilution in both cases being 1 in 20 and the time limit 15 minutes. The second bacillus clumped as follows:—1. With the blood of the patient from which the bacillus was isolated, dilution 1 in 40, in a few minutes. 2. With Parke-Davis' anti-dysenteric serum, dilution 1 in 70; time, quarter of an hour. 3. With the blood serum of a brother of the patient, aged eight years, suffering from colitis. 4. With the blood serum of another brother of the patient, aged one year and eleven months, suffering from a mild form of the disease; dilution, 1 in 25; time, half-hour. 5. With the blood serum of two children in another family with similar symptoms; dilution, 1 in 40; time, quarter of an hour. 6. With a sample of blood kindly sent to us by Dr. Flashman from a patient in Parramatta Asylum suffering from asylum dysentery; dilution, 1 in 20; time, half hour. 7. In addition to these results, a guinea-pig was inoculated with the bacillus and its blood serum tested by Dr. Tidswell with a type Shiga bacillus imported by him, and also with a bacillus isolated by Dr. Flashman from a case of asylum dysentery. In both cases a positive reaction was obtained with high dilutions.

The bacillus isolated from the third case clumped with:—1. Parke-Davis anti-dysenteric serum, dilution 1 in 100, in a few minutes. 2. The blood serum of the guinea-pig inoculated with the second bacillus, dilution 1 in 70; time, 10 minutes. 3. The blood serum of the patient, dilution 1 in 70; time, 10 minutes.

We must admit having examined the stools of a number of cases of enteritis in children without finding the bacillus dysenteriæ; but this does not argue anything definite, as the colon bacilli are so greatly increased in these cases that the specific organism may be easily missed. Then we have tested the blood of a number of children suffering from diarrhœa for the agglutination reaction with a negative result. All the writers on the subject, however, admit that the agglutination reaction does not always occur; and, as a matter of fact, the immunity conferred by an attack of summer diarrhœa is never very great.

The recognition of the etiological factor of summer diarrhœa is an important one in this country. In his health report for 1903, Dr. Armstrong states that 40 per cent. of the deaths under one year in Sydney were caused by the group of diarrhœal diseases. Our results so far as they go tend to confirm the statements made by American investigators, that Shiga's bacillus plays an important rôle in the disease. Further, our clinical experience has been that the severer forms of summer diarrhœa are of a dysenteric character; and in several post-mortem examinations we have found the lesions to be limited to the colon and lower part of the small intestine. The exact lesions noted in four post-mortem examinations were as under:—

1. Child aged 12 months: Had an acute attack of enteritis lasting five weeks. Post-mortem, there was follicular ulceration throughout the whole of the large intestine and involving the greater portion of the ileum. The rest of the intestine was apparently healthy.

2. Child aged 2½ years: Had symptoms of acute colitis lasting about seven days. Post-mortem, the mucous membrane of the colon was granular-looking throughout; there was intense congestion of the tips of the rugæ, and extensive minute follicular ulceration. The lower end of the ileum showed numerous enlarged solitary glands. The rest of the intestine was healthy.

3. Child aged 2½ years: Had symptoms of acute colitis lasting five days. Post-mortem, the mucous membrane of the whole of the large intestine and of the lower three feet of the ileum was acutely congested. There was superficial ulceration of the mucous membrane of the colon and enlargement of the solitary glands. The mesenteric glands were considerably enlarged.

4. Child aged nine weeks: Had severe diarrhœa lasting one week. Post-mortem, mucous membrane of the colon, ileum and part of the jejunum was markedly injected. There was no ulceration.

However, there is scope for further work in connection with this subject, and we hope to continue our observations.

Lastly, a word about the serum treatment of dysentery. Shiga tested an anti-dysenteric serum obtained from an immunised horse, with the following results:—1. A series of 65 cases; death rate, 9 per cent. 2. A series of 91 cases; death rate, 8 per cent. 3. A series of 110 cases; death rate, 12 per cent. The corresponding series under ordinary treatment yielded a mortality of over 30 per cent. American authors speak hopefully of the use of this serum in cases of summer diarrhœa, but we have not seen any statistics on the subject yet. Parke, Davis & Co. have a supply of anti-dysenteric serum in Sydney, and we hope to give it a trial during this summer.

In conclusion we have to thank Professor Welsh for kindly assistance and permission to work in the laboratory at the Medical School, and also we are indebted to Dr. Tidswell for some valuable help.

(Read before the New South Wales Branch of the British Medical Association.)

REFERENCES.—(1). Johns Hopkins' Bulletin, Vol. XI. (2.) *Boston Medical and Surgical Journal.* (3). *The Journal Medical Research*, Nov. 19, 1902. (4). "Serums in Treatment and Diagnosis"—Bosanquet.

CASE OF ACUTE MENINGITIS FOLLOWING EPIDEMIC PAROTITIS. — OPERATION. — RECOVERY.

By H. M. Lister, M.B., Ch.M., and W. J. Fearnley, M.B., B.S., Charters Towers, Queensland.

ANNIE H——, 5 years, was first seen on May 23rd, 1904. The mother stated that three weeks previously she had an attack of mumps, which subsided a week before. About that time she had a fall, striking her head on the left side.

On May 20th she began screaming almost incessantly and complaining of her head. She also began vomiting, irrespective of taking of food. When seen on 23rd she presented the appearance of a typical case of meningitis, with headache, screaming, vomiting, occasional convulsions and muscular tremors. Kœnig's sign was present, and there was photophobia. The pupils were equal and dilated, and on ophthalmoscopic examination the discs were both equally choked. The knee-jerks were equal and exaggerated, as were the superficial reflexes. Tâche cerebrale was present. The urine was normal. In spite of chloral, bromides and hydrotherapy, she went from bad to worse for the next three days, so that on May 26th bulbar symptoms were evident. She was unconscious and unable to swallow; respirations were rapid and irregular, and the pulse likewise.

As a last resort (taking into consideration the history of a fall) it was decided to trephine. This was done, and a piece of bone one inch in diameter was removed from the left parietal bone at a spot four inches directly above the prominence of the mastoid. As soon as the dura mater was incised, clear cerebro-spinal fluid poured out, and by compressing the bulging brain with the point of the finger as much as three ounces was allowed to escape. No lymph was seen, but great vascular engorgement was present. The patient showing signs of collapse, a gauze drain was inserted underneath the skin flap, which was stitched down. The gauze was removed on the second day, but fluid continued to drain away till the fourth day.

After operation the bulbar symptoms disappeared, and there was no more vomiting. As nourishment was retained the pulse steadily improved, and consciousness returned on the sixth day. For a fortnight after operation there was aphasia, and the child gave every indication of becoming an idiot. Since then, however, speech has completely returned, though the child's education had to commence afresh, "mamma" and "papa" being the first words it was taught to repeat. Now (September 25th) her memory for events that occurred before her illness has returned, together with full mental and muscular power.

Comments.—Our reason for reporting this case is that in the necessarily somewhat restricted literature at our disposal we have been unable to find any record of a similar case; and, further, to raise the question of the advisability of operation in a disease so invariably fatal as acute general meningitis, even of non-tubercular or septic origin.

Dental Hospital of Sydney.—The following is a summary of the work performed at the Dental Hospital of Sydney during the year ended December 31st, 1904:—Total number of cases treated, 8106, viz., new patients 4292, patients treated on more than one occasion 3814. The nature of the relief afforded was as follows:—Extractions, 9568, inclusive of 3688 under an anæsthetic; fillings, amalgam 523, cement 371, total 894; root and temporary filling, 364; treatments, dressings, etc., 1402; cases treated under an anæsthetic, 289; dentures supplied, 40; dentures repaired, 10; male patients, 3118; female patients, 4988. The average daily attendance was 34, and the average daily treatments 32.

THE HISTORY AND DEVELOPMENT OF THE LIGHT TREATMENT.*

By William R. Fox, L. et L.M., R.C.P. et R.C.S. (Edin.), North Fitzroy, Melbourne.

(*Continued from vol.* 23, *page* 630.)

It is a curious fact that the eruption of smallpox usually appears first on the face and neck and on the hands, and that the deepest and most confluent pocks producing the largest scars are in these situations. It occurred to Finsen that a reasonable explanation of this phenomenon might exist in the fact that these are the parts which are most constantly exposed to the action of light—that is, to the actinic rays. Some indications that light exerted an unfavourable influence over the course of this disease were noticed by Picton in 1832, by Black in 1866, and by Barlow and Waters in 1871, but they do not seem to have attracted much attention. With a disease so rampant as smallpox used long ago to be, it is only natural to find that in those times a great variety of empirical applications were advocated to prevent the dreadful scarring which so commonly occurred. It is curious to note that many of these which seem to have had some considerable measure of success possess the power of excluding light from the skin or of shutting out the actinic rays, such as, for instance, painting with nitrate of silver or iodine solution, or covering the skin closely with compresses coated with some thick adhesive and fatty material. Coste, who advocated the continuous application of compresses soaked in boric acid lotion, observed that when the compresses did not completely and closely cover the skin, scars resulted, but not otherwise. Dr. Julius Petersen, of the University of Copenhagen, states that in the middle ages red bed covers, red globes placed on the beds, and red surroundings generally were employed in the treatment of smallpox. Similar methods are employed in China, the East Indies, and Japan, and have been so for centuries past up to the present day. Consideration of these facts caused Finsen to advance the theory that the development and maturation of the vesicles in smallpox was brought about by the influence of the actinic rays of light, and in 1893 he put this theory to the test. It was first tried at Bergen, in Norway. Eight patients were treated by placing them in red light, four of them being unvaccinated children with confluent vesicles on the face and hands. Dr. Svendsen, under whose observation they were, states that the period of suppuration, the most dangerous and most painful stage of smallpox, did not appear; there was no secondary fever; the patients entered the stage of convalescence immediately after the stage of vesication, which seemed a little prolonged; the hideous scars were avoided. This treatment was then given extended trials, with generally remarkably favourable results, except in some instances when it would appear that the light was not properly excluded. It would occupy too much space to relate all the cases in which this treatment has been tried; but it would seem to be clearly proved that in all cases in which the smallpox patients are placed *early enough in red light, and kept in it until all the vesicles are dried up*, and when care has also been taken to *test the purity of the red light*, suppuration of the vesicles does not occur, and secondary fever never develops. The patients are thus spared the most dangerous period of the disease, and they, as a rule, recover without scars. In the *British Medical Journal* for June 6th, 1903, Finsen published an article in which he declares the opinion in the most emphatic manner that it is unjustifiable to submit smallpox patients to the risks entailed by an exposure to ordinary daylight. In the *Lancet* of March 5th, 1904, Dr. Nash, medical superintendent of the smallpox hospital at Southend-on-Sea, publishes an account of 30 cases treated in that institution. These form an interesting commentary on the red light treatment. Of these 30 cases, 12 were treated in ordinary light, and of these 12, 6 were vaccinated in infancy, 1 was vaccinated after infection, during the incubation stage, and 5 were non-vaccinated. In the vaccinated cases the eruption was modified by vaccination in six cases, and in the seventh is described as mild and discrete. In the five non-vaccinated cases the eruption was confluent in all. In one case the eruption was of the hæmorrhagic variety, and the patient died within 48 hours of admission. Among the six cases unvaccinated at the time of infection (one being vaccinated, as I have stated, during the incubation period) four deaths took place. Excluding the case of hæmorrhagic smallpox, which was moribund on admission, there were thus three deaths in 11 cases. It was then decided to try the red light treatment, and 13 cases from the same outbreak, which occurred during 1902, were treated in this way. Of these, six were vaccinated in infancy, two were successfully vaccinated after infection, four were unvaccinated, and one was doubtful. One of the vaccinated cases in this series also had hæmorrhagic smallpox and died within 48 hours of admission, one had a very severe confluent eruption, and in three others the eruption was semi-confluent. Excluding the hæmorrhagic case, which was moribund on admission, there were no deaths in the other 12 cases. In 11 of these 12 cases the eruption was modified by the red light treatment, and in the twelfth the eruption was in the pustular stage when admitted. The remaining five cases of the 30 occurred in 1903, and were treated with red light. Of these, two were vaccinated, and three unvaccinated. In the vaccinated cases the eruption was discrete and aborted under the red light treatment, and in the unvaccinated cases, "which were all well marked typical cases, with copious eruption (confluent), the vesicles became fuller and rounder towards the ninth day. A few were pricked with a needle, and these exuded a thin, semi-purulunt fluid, but no actual pus. Secondary fever was quite absent." Dr. Nash does not mention whether the red glass was tested, or give any information about scarring. He states that "these cases are too few in number to draw absolute conclusions from," yet "while fully recognising that prior vaccination undoubtedly plays the principal part in lessenting the virulence of the disease on vaccinated persons, his experience justifies him in the belief that the red light treatment is of distinct benefit." The deleterious influence of light in smallpox is not only established by the results of red light treatment which have been recorded in many parts of the world, but also by some very interesting control experiments. Some patients who had been treated with red light were exposed to daylight after the complete drying up of the vesicles on the face, but while there were still some vesicles upon the hands, the latter suppurated and left scars, while there was not one anywhere else. In an unvaccinated infant with confluent smallpox, suppuration had already commenced in the pocks on the face, while the eruption on the hands was not so advanced. The attack became very severe, and innumerable scars persisted in the facial region, but on the hands the vesicles dried up without suppuration, and the child was absolutely free from scars in this part.

Since it is quite clear, then, that light influences the development of the eruption in smallpox, the obvious theoretical remedy is to exclude the light. Now, it is plainly impracticable to keep a patient in absolute darkness for any lengthened period, and Finsen adopted the very ingenious solution of this difficulty by keeping the smallpox patients in red light; that is, in light deprived of its actinic rays. In this way the deleterious rays are completely excluded, and at the same time sufficient light for all ordinary purposes is obtained. In fact, he treats smallpox patients exactly in the same way as a photographer treats his sensitive photographic plates. All light is carefully excluded except that through the windows, which are glazed with red glass. This glass must, however, be really red, that is, it must permit no other but red rays to pass through it. And it is at this point that a serious or fatal mistake is very apt to be made. Any photographer of experience will tell you that it is impossible to rely on the apparently red colour of red or ruby glass as a test of its power to exclude actinic rays—in fact, the majority of glass sold as red or ruby glass, and which looks red to the eye, will permit more or less of the actinic rays to pass through. A number of glasses were tested for Finsen at the University of Copenhagen by means of Vierordt-Kruss apparatus, with the result that most of them were found to be defective. Red glass, therefore, should be carefully tested before being used for this purpose, and it should be demonstrated by the spectroscope that the ray of light passing through it contains none of the more refrangible rays. It is no use employing a filter unless it filters in an efficient manner. Covering the windows and doors of a sick room with red cloths or red hangings in the treatment of smallpox is not testing this method. Such a measure can only very partially exclude the actinic ray, and is certain to be inefficient, if not a complete failure. It is unscientific and inexact, and is in no sense a test of Finsen's theory. It is not known why light should so influence the course and development of the eruption in variola, and Finsen himself does not offer any adequate explanation of this phenomenon. A possible explanation may later on be found to be that the germ of variola develops best under the influence of the actinic rays, and that this is accompanied by the suppuration of the vesicles. In the absence of these rays the germ ultimately perishes, and the vesicles desiccate without maturing. Might not such an explanation also account for the difficulty in dealing with an outbreak of smallpox in centres of dense population, for in this instance sunlight is assisting in the propagation of the germ instead of destroying it, as it does in the case of most other disease germs, such, for example, as the bacilli of tuberculosis and typhoid fever.

[Three lantern slides of smallpox patients were then shown. All were of the confluent variety, and were treated with red light. There was no suppuration, and the patient recovered without scars. The temperature charts showed that there was no secondary fever.]

Turning now to the consideration of the actinic rays which exist in light from an artificial source, we find that the light from ordinary lamps contains less, and the light from the electric arc lamps contains more actinic rays proportionately than sunlight. Since it is to these rays that light owes its stimulating and bactericidal qualities, it follows, if it is desired to use it as a therapeutic agent, a light in which these rays exist in large proportion should be used. It is believed that sunlight is much richer in these rays before it reaches our atmosphere, and that a large proportion of them is filtered out in its passage through it. It is well known that in many so-called electric light baths incandescent electric lamps are used, but the light from these lamps contains scarcely any actinic rays, certainly very much less than exist, not in direct sunlight, but in ordinary diffused daylight. They are therefore in so small proportion as to be quite inefficient, and it is a misnomer to call these baths light baths. They owe their action to the heat rays given off, and these are so abundant that a temperature of 150° or 200° F. or more can be easily obtained with, say, 50 lamps. They are really diaphoretic baths, in which the heat is obtained from electric lamps instead of from hot air or vapour, and as diaphoretic baths they appear to be of great service. Recently incandescent electric lamps have been introduced which give out very few heat rays, raising the temperature of the bath only a few degrees, but I doubt whether the actinic rays are vastly increased. Proper light baths, that is, chemical or actinic light baths, are quite different to the incandescent light baths. They are cold, and cause a very marked stimulant action on the skin; they produce dilatation of the capillaries and blood-vessels of the integument, not necessarily acute, but of long duration, and thus promote a better nutrition and greater functional activity of the skin. The source of the light is usually either in direct sunlight or the electric arc. The great power of the actinic rays in the electric arc lamp was clearly shown long ago by the effect on workmen testing arc lamps. Too long exposure to the light would produce diffuse inflammation of the face or other exposed parts, with shedding of the cuticle, and, in some cases, temporary blindness. The introduction of the electric arc into the smelting and welding of metals was followed by some curious results. The workmen suffered so severely from these effects that they refused to work at the electric furnace, preferring more laborious work at lower wages to undergoing the suffering entailed by prolonged exposure to the influence of the electric arc. This experience was common to the great Creuzot Arsenal a great metal foundry at Kolomna, near Moscow, a large Glasgow foundry, and several others. Since it was imperative to continue the use of the electric arc in the smelting and welding of metals on account of the ease and expedition with which these processes can be carried out by its means—indeed, some of them cannot be efficiently effected in any other way—it became necessary for the authorities to call in skilled advisers to find some means of obviating these effects. The investigations at the Creuzot Arsenal were carried out by Dr. Defontaine, and at Kalomna by Dr. Maklakow. In order to test the matter for himself, Dr. Maklakow exposed himself to the electric arc during a welding made by a current of 500 volts. He, as well as the workmen employed, wore black spectacles, without which he was unable to look at the arc light for more than two seconds. The exposure lasted three-quarters of an hour. On the way home he began to feel a pricking sensation in the skin of the face, and this soon increased, and was followed by coryza and lachrymation. A second exposure, lasting for ten minutes, was made three hours after the first. Two hours after this the swelling was so great that it was impossible for him to open his eyes; there was pyrexia, and he was photophobic and restless. The pain became so great that it had to be relieved by injection of cocaine. A few hours afterwards his face was dark red and greatly swollen, and there was severe chemosis of the ocular conjuctivæ. The pain lasted all night, and all the exposed parts became acutely inflamed. On the following day the inflammation of the skin increased still more, and did not begin to abate until the day after that. Finally the skin desquamated in large flakes, as after scarlet fever, leaving the integument slightly pigmented. It was proved by experiments that the heat radiated from the electric arc was comparatively slight, and the result of these various investigations was to prove that the effect was produced by the actinic rays alone, and the remedy was found in the expedient of protecting the workmen by completely covering the exposed parts with some red or yellow material. Protected in this way they are able to carry out their work without any of these disastrous after effects. Professor Widmark, of Stockholm, experimentally demonstrated the truth of this. He used an electric arc of 1200 candle-power, and he eliminated first all the heat rays and then afterwards all the actinic rays. He found that under the influence of all the rays of light, except the actinic or ultra-violet, the skin was unaffected, and under the influence of all the rays, except the heat rays, the characteristic inflammation developed.

The influence of light as a bactericide, its power to cause inflammation and pigmentation of the skin, and its powerfully stimulating action on the integument generally, suggested to Finsen that it might prove of value in certain diseased conditions of the skin. Now lupus is a disease which remains always more or less superficial, and which is of bacterial origin. It was possible, therefore, that powerful actinic rays might produce a favourable result in such a disease. Since, however, lupus almost invariably develops on the face and neck—that is, on parts continuously exposed to the sun's rays—it is quite clear that it would require much more powerful actinic rays than are contained in ordinary daylight to affect it. This is also an evidence that its tubercle bacillus differs from that of pulmonary tuberculosis; indeed, Klein says that "to call lupus tuberculosis of the skin does not cover the facts, since real tuberculosis of the skin does occur, and is totally different from lupus, and that it is quite feasible to assume that lupus is tuberculosis, but that in origin and virulence its tubercle bacilli are quite different from the bacilli causing tuberculosis." It is quite evident, also, that these bacilli differ from true tubercle bacilli in their power of resisting the actinic rays in sunlight. If the actinic ray were as destructive in the one case as in the other, lupus of the face would never occur. One or two isolated attempts had previously been made to try the effect of light on lupus, but these were not carried out in any efficient manner, and Finsen determined to investigate the matter from the beginning. As the bactericidal effect of sunlight is necessarily very slow when it is called upon to penetrate the upper layers of the skin, it was necessary to first concentrate it as much as possible and then to remove the heat rays from it. Finsen effected these two objects by means of large hollow bi-concave lenses filled with a solution of methylene-blue or ammonio-sulphate of copper. These blue, watery solutions will absorb practically all the heat rays. Sunlight was focussed or concentrated by means of these lenses on to the patch of lupus. Although he very soon began to obtain indications that this treatment was distinctly favourable, it was exceedingly tedious, the exposures being of considerable length, and having to be continued for a very long period of time. He then determined to make use of the intensely powerful stream of actinic rays given out by a large electric arc. As already pointed out, this light is proportionately much richer in these rays than sunlight is. By increasing the size of the carbons he was able to employ a much larger current, until eventually he was using carbons two inches in diameter and an electric current of 80 to 90 amperes. An idea of what this current means may be formed when I tell you that the large electric arc lamps that light our main thoroughfares use a carbon three-eighths of an inch in diameter and consume about five amperes of current. Finsen's lamp was thus as powerful as 15 or 16 of these lamps put together. Such a lamp would, of course, be costly, and would be expensive to run. Its power was so great that both attendants and patients had to be carefully protected from it. This is effected by screening the light by means of a large cloth or metal covers. At first the eyes of the attendants and patients were protected with glasses of a dense black colour, but complete screening of the lamp is much more convenient. The powerful beam of rays is concentrated by means of a train of lenses contained in a tube which somewhat resembles an enlarged telescope, from which it is projected on to the desired spot on the patient's skin. Light from this source does not contain many heat rays, but even what it does contain are filtered out by passing the beam of light through water or through solution of ammonio-sulphate of copper. In order to ascertain definitely that this concentration of the light increased its efficiency in a corresponding ratio, Finsen conducted the following experiments:—Some flat rectangular bottles were coated on the inside with gelatine-peptone and sown with cultures of bacillus prodigiosus, Eberth's bacillus, and anthrax bacillus. The bottles were coated with light-proof material, which had round openings in it through which the light could shine on the subjacent part only of the culture medium. At the end of one or two hours these were exposed to sunlight, concentrated sunlight, and electric arc light respectively, and then kept in darkness for one or two days. At the end of that time the result was seen at a glance. Wherever the light had fallen on the culture-medium no germ-growth had taken place, while throughout the parts sheltered by the light-proof covering, colonies had developed. Numerous experiments of this kind proved conclusively that concentrated sunlight kills these bacteria fifteen times faster than direct light, and that the concentrated light from an electric arc is very many times more powerful than this.

It is well known that the luminous rays of light will penetrate living tissues to a certain limited extent. This fact is taken advantage of in transillumination of the antrum or of a hydrocele and in various other ways. If a piece of sensitised photographic paper be placed behind the external ear and a beam of concentrated blue-violet light be projected on to the auricular appendage, no reaction upon the sensitive paper is found at the end of five minutes. But if, on the other hand, the external ear is compressed so as to render it exsanguine, the actinic rays will penetrate through the ear and blacken the sensitised paper at the back of it in 20 seconds. This and other experiments prove that the blood, probably owing to its red colour, stops and absorbs the actinic rays. For this reason it was found necessary to use pressure on the affected areas when submitting them to light treatment to render them bloodless. This is effected by means of flat or slightly convex plates or rock crystal or of ice. The effect is then produced much more rapidly.

Now glass absorbs or prevents the passage through it of a very large proportion of the actinic rays ; under certain circumstances, as much as 70 to 80 per cent. of these chemical rays being eliminated from white light on its passage through glass. Hence glass lenses should never be employed. It is found that these rays pass readily and without loss through rock crystal or quartz, and the lenses for concentrating the light are therefore made of this material. Ice is also singularly free from any power of absorbing these rays. Hence its employment as a compressing agent to drive the blood from the part treated. Quartz lenses are expensive, and they cannot be obtained of any large size. With quartz lenses, and with a current of 80 amperes passing through the lamp, the flood of actinic rays is so powerful tht Finsen was able to kill the bacillus prodigiosus with an exposure of one minute, and in several cases of lupus in which the lesion was about the size of a pea, one exposure to it of from 15 to 20 minutes' duration was sufficient to completely cure the disease and cause it to disappear.

Every effort was made to increase the proportion of the actinic rays, and many experiments were tried with this object in view. As a result, Dr. Bang, of Copenhagen, found that if iron were burnt in the electric arc, the actinic rays were greatly increased. He inserted a rod of iron in the centre of the carbons used in the lamp. This again greatly increased its efficiency. Later on electrodes composed entirely of iron were used, but since the electric arc is of intense heating power (although its heat radiation is not great), it rapidly melted the iron. To remedy this, the electrodes were made hollow, and water allowed to circulate inside them, or a high tension current of less heating effect employed. So great is the increase in efficiency obtained by employing iron as an electrode that the lamps have been reduced to the size of a small hand-lamp. In some of these, hollow iron electrodes, with water circulation, are employed, and in others ordinary iron electrodes are used with the secondary current from an induction coil, modified by a condenser. Now, the ultra-violet ray possesses the power of exciting fluorescence in certain substances. One of these is willemite, a native silicate of zinc. In the presence of ultra-violet rays this gives out a greenish-yellow fluorescence. It may therefore be used as a test for their presence. It will show that they exist, for instance, in the radiation from an X-ray tube, but in very small proportions when compared to the light from one of these iron electrode lamps, under whose influence the mineral fluoresces most brilliantly. Passing a sheet of glass between the lamp and the willemite completely eclipses the fluorescence, while a sheet of rock crystal or quartz will not do so. On the instigation of her Majesty the Queen (then Princess of Wales) a medical commission was sent in 1900 from the London Hospital to Copenhagen to investigate the light treatment as practised there by Finsen, and to report on the results of this new treatment.

This commission was headed by Dr. Sequeira, and its report was exceedingly favourable. Her Majesty the Queen presented the first lamp to the London Hospital about this time, and the treatment was thus introduced into this great institution. With this lamp, four patients could be treated at once, since four telescopic tubes, each with its train of lenses, were fixed at equal distances around the lamp, and served to concentrate the rays on to the desired spot. For this reason, a lamp of like this is sometimes spoken of as four lamps. This is the case in the following extract from an official letter written in June, 1903, by Mr. Sydney Holland, the chairman of the London Hospital:—"Through the foresight and generosity of her Majesty Queen Alexandra who started the Finsen light cure for lupus in this country, and presented the first lamp to the London Hospital, we have been able during the past three years to establish beyond dispute the marvellous results of the light cure. Although we have added eight lamps to the four Queen Alexandra gave us, and have now 13 nurses working at nothing else, it will take us two years before we can get through the patients waiting to be cured from all parts of England."

The merit of Finsen's work was recognised last year by the award to him of one of the Nobel prizes.

The published results of the Finsen Institute need only the briefest reference. Up to the end of 1900, treatment had been completed in 456 cases of lupus vulgaris. Of these, no fewer than 130 were known to be free from any recurrence for from one to five years. There were then still under treatment 117 cases, and in 67 cases the treatment had been, for various reasons, abandoned. In only 11 cases out of the total of 640 was the result said to be unfavourable. Favourable results were also obtained in verrucose tuberculides of the skin, in lupus erythematosus, in alopecia areata, in rodent cancer, in acne vulgaris, and in some cases of vascular nævus.

[Many lantern slides were then shown, including photographs of cases before and after treatment, illustrating the remarkable way in which patches of lupus will disappear and leave scarcely any scar.

Ultra-violet lamps, illustrating the use of iron electrodes, with and without water circulation, were also exhibited.]

(Read before the Victorian Branch of the British Medical Association).

A CASE OF INTRA-PERITONEAL RUPTURE OF THE BLADDER.—OPERATION.—RECOVERY.

By T. L. Anderson, M.D., B.S. (Melb.), Hon. Medical Officer, Fremantle Hospital.

W.J.S., age 30 years, admitted to hospital May 29th.

History.—During a drunken brawl he was kicked three times about the abdomen, one being over the pubic region, on the afternoon of May 28th. He was taken to the police station and remained there that night. In the morning he complained of severe abdominal pain; he had not slept, and had vomited twice. He had passed no urine since receiving the injury. He was seen by the police surgeon at 10 a.m., who passed a catheter and drew off about a pint and a-half of blood-stained urine. As his condition seemed serious he was sent to the hospital, where I saw him at 2 p.m.. A catheter was passed and six ounces of clear urine drawn off. Temperature, 97·2°; pulse, 84; expression anxious; breathing shallow and rapid; abdomen distended; slight dulness in both flanks, varying on rolling him on his side; liver dulness present. Vomited shortly after admission.

Operation.—Under ether the abdomen was opened in the mid line. The intestines were found red and infected, but had not lost their lustre, and no lymph had been thrown out. A little fluid was found in the flanks, not distinctly urinous in odour. An examination of the peritoneal aspect of the bladder disclosed a longitudinal tear almost in the mid line, about the middle of the bladder. The mucous membrane had prolapsed into the wound, thus practically sealing the opening and preventing any serious leakage of urine. The wound in the bladder was closed with Lembert sutures of fine silk, eight in number, and a small piece of iodoform gauze was placed over the line of sutures and brought out of the lower end of the wound. The lower part of the abdominal cavity was flushed out with saline solution, and the wound closed with through-and-through silkworm gut sutures, the lowest one being left untied. No fluid was passed into the bladder to test the sutures, but a soft rubber self-retaining catheter was introduced at the end of the operation.

Course.—May 30th.—Temperature, 99·8°. Restless and did not sleep; general condition bad; abdominal pain; vomiting at times; abdomen full; catheter draining clear urine; pulse, 120.

May 31st.—Temperature, 93°. Pulse, 84. Better; slept a little. Bowels open after enema. Wound dressed; gauze drain removed and lowest suture tied, closing wound completely.

June 3rd.—Catheter removed; sixth day after operation, much better. Wound dressed; looking well. From this date he went on very well until June 18th, 21 days after operation, when a small abscess was opened at site of lowest suture. Next day the dressings had a distinctly urinous odours and this persisted for four days, when the dressings were found quite free from any odour of urine. A few days later the wound was quite healed. Patient stated that for these four days he could feel a warm trickling sensation inside lower part of abdomen each time he passed his urine, but whether this was imagination or not I cannot say.

Last week the patient reported himself as never having felt better, and as having had no trouble whatever with his urine.

Remarks.—A good summary of the cases on record of the condition will be found in the *Annals of Surgery*, February, 1903. A good article on the condition also appears in the *Medical Annual* for 1904. The drawing off of 1½ pints of urine was rather against a ruptured bladder, and although it was evident some serious abdominal injury was present, I thought that most probably the condition was a ruptured intestine. No special difficulty was found in putting in the sutures, which passed only through the peritoneal and muscular coats. The sutures were passed from above downwards, and each was left long in order to pull up the bladder a little, so as to get at the lower part of the wound better; then they were all cut off short. A full curved round needle was used, without a needle-holder. The escape of urine so late as the twenty-first day is very remarkable, and is hard to satisfactorily explain. There was no cystitis from the presence of the catheter, but the patient was on a mixture containing sodium benzoate from the third day, and he took this for a fortnight.

SYMMETRICAL GANGRENE IN GENERAL PARALYSIS OF THE INSANE.

By J. Steell, M.B., Ch.M. (Edin.), L.R.C.P., L.R.C.S. (Edin.), Ballarat, Vic.

C.D., aged 37 years, male, was admitted to the Ballarat Hospital for the Insane on March 10th, 1904, suffering from general paralysis of the insane, well advanced in the second stage, with marked affection of the muscles of the face, tongue and lips, and also loss of co-ordination in the movements of the lower limbs. He could, however, talk, walk about, feed and look after himself generally, although speech was difficult, and he had marked delusions of exaltation. The patient remained in much the same condition until September 6th, when he was seized with a severe series of congestive attacks, with marked spasms of various groups of muscles, for which he had to be confined to bed. He, however, rallied after a few days and the convulsions passed off. During the convulsions and after they had ceased the patient could not void his urine, and this had to be drawn off. The cause of this stoppage was apparently due to temporary spasm at the neck of the bladder, for on several occasions between the convulsive seizures the patient was able to empty his bladder without difficulty, but during the convulsive period and immediately after the catheter was stopped at the trigone. While the convulsive seizures were present the patient was at times very restless, and had to be kept in his single room warmly clothed and with his woollen socks on.

On October 16th he was much quieter, and as it was a beautiful, warm day and the convulsions had ceased, the patient was placed in a chair in the sun in the hospital garden, and remained there for some hours, when he was again returned to his room. No change was reported in his condition when I saw and spoke to him on the night of October 17th, and he was bright and cheerful. Next morning, although well clothed and lying comfortably in bed, he had a general cyanosed appearance, but was not markedly cold to touch. About 3 p.m. I was called again to see him, when he appeared worse, and I carefully examined his lower extremities, the toes and ball of the foot being markedly livid and almost black, this colouring extending half way up the sole of the foot on both sides.

Shortly after my visit the patient collapsed and died, and then it was found that the gangrene, which was of the moist variety, was found to have extended up to the ankle joints.

Post-mortem. — *Cranial Cavity.* — Membranes very thick and opaque; pia mater adherent to brain substance at various parts; all membranes deeply congested throughout. Brain substance markedly congested, also marked wasting of grey matter on right side. *Thoracic Cavity.*—Right side, old standing pleurisy; pleura adherent at certain places to chest wall. Left side, pleura much injected, mediastinal glands caseous; both lungs congested throughout. Heart, left ventricle dilated walls flabby; aorta atheromatous. *Abdominal Cavity.*—Liver fatty in irregular patches, enlarged, congested, cirrhotic and friable; spleen congested throughout; kidneys, right, capsule slightly adherent, congestion slight, cirrhotic; left, large, cirrhotic, congested, pregranular stage, cortex contracted; stomach dilated, hour-glass contraction present; urine, colour light yellow; acid, sp. g. 1020, contained amorphous phosphates, a quantity of albumen, but no sugar.

The points that I wish particularly to draw attention to are these: the rapid development of the gangrene, its acute inflammatory character, symmetrical nature, and that there was no sugar in the urine.

In looking up several authorities on this question of symmetrical gangrene I was unable to find any data regarding it, except in relation to the disease occurring in diabetes and in Raynaud's disease. This latter, however, is a dry gangrene, and does not as a rule affect a large area, but only small patches of the body, such as the fingers and toes or portions of them. Ross, in his able treatise on nervous disease, states that symmetrical gangrene depends on a spastic ischæmia of the blood vessels; but this, I take it, only refers to cases of dry gangrene, as in Raynaud's disease. Professors Veen and White, in their "System of Surgery," draw attention to the various forms of gangrene and their causes, and incidentally mention Raynaud's disease, stating that dry gangrene is caused by a gradual stoppage of the arterial supply, with no obstruction of the venous circulation to a part; that moist is caused by a sudden stoppage of the arterial supply, with obstruction to the venous circulation. Dry is due to loss of water by evaporation; moist occurs in deep-seated tissues where there is little or no evaporation. Raynaud's disease, besides occurring in fingers and toes, occurs in tip of nose, prominence of cheeks, and other salient points where heat of body less; due to spasm of vaso-motor constrictors by reflex action. (Cold finger similar.)

Another American author states that the pathology of symmetrical gangrene is very doubtful; that it may be due to a peripheral endarteritis or neuritis, or that it may be an affection of the vaso-motor centres of medulla and cord.

Professor Anders, in his "Practice of Medicine," says: — "Raynaud's disease occurs most frequently in women, and may be associated with epilepsy, migraine, hysteria, and other mental disorders. The cause of Raynaud's disease is cold or severe mental disturbance, and pathologically it is defined as a neurosis characterised by enormous exaggeration of the excito-motor energy of the grey parts of the spinal cord that control the vaso-motor innervation."

Symmetrical gangrene, besides occurring in those diseases already mentioned, also sometimes comes on in syringomyelia and leprosy. In syringomyelia the pathological condition is stated to be marked neuroglial overgrowth near the central canal of the cord.

FIVE CASES OF PLACENTA PRÆVIA.

By E. Cuthbert Hall, M.D., Ch.M. (Syd.), Parramatta, N.S.W.

DURING the last four years, out of a total of 295 midwifery cases, I have met with no less than five cases of placenta prævia, and as these are always a source of grave anxiety to the practitioner, perhaps my experiences therewith may be worth recording. Playfair, in his "Midwifery," quotes Johnston and Sinclair to the effect that placenta prævia occurs in one in 573 cases. My proportion of five in 295 is much in excess of that. Again, out of the five cases, all the mothers recovered, and of the children, two were born alive and have survived to the present. Of the other three children, one was only a six months' fœtus, and craniotomy had to be performed. I will now give a description of each case.

Case I.—July 1st, 1900.—Mrs. A., *æt.* 33 years, multipara. Patient, six months pregnant, complains of headache and vomiting, and swelling of hands and feet. The urine was examined and found high-coloured, sp. gr. 1026; acid, contained much albumen. The patient was put on milk diet and ordered a saline diuretic mixture.

July 2nd.—Had slight pains in hypogastrium during the afternoon. At 10.30 p.m. a profuse flooding suddenly took place. On my arrival half an hour later the patient was still flooding rather freely, the pulse was soft and quick, and there was great pallor. The os uteri admitted the examining finger, and the head was felt presenting. Projecting half-way across the os from the right side, the margin of the placenta could be felt. As the patient had lost much blood, the membranes were perforated and the bleeding immediately ceased. Stimulants were administered freely. As pains, regular but not very strong, came on, I waited several hours. The dilatation of the os was slow, however, and considering the serious condition of the patient from the severe hæmorrhage, the fact of the presence of albuminuria, and that the fœtus being a six months' one was practically not viable, I performed craniotomy, and was able to then easily effect delivery. Several large clots came away with the placenta. Patient made an uneventful recovery, and has been quite well ever since. The albuminuria was markedly lessened the day after the confinement, and a week later the urine was quite free from albumen. The concurrence of albuminuria and placenta prævia is well worthy of note.

Case II.—August 13th, 1901.—Mrs. M., *æt.* 30 years, multipara. Patient nine months pregnant. Eleven days ago had a smart hæmorrhage, followed by a second one four days later. Has again been flooding during the previous night and this morning. Pulse fair, but has lost much blood. The head could be felt at the pelvic brim, and the soft mass of the placenta lying to the left. The margin of the placenta could be felt to the left of the os, and projecting half-way across. As the hæmorrhage kept recurring with each pain, an attempt was made to turn bimanually, but this proving too difficult, the os was dilated with the fingers as far as possible, and the forceps, after some difficulty, were applied. The head was in the R.O.P.

position, so when the os was sufficiently dilated the forceps were removed, the head rotated, the forceps re-applied, and the child, a full-sized male, was delivered, but was stillborn. The mother made an uneventful recovery.

Case III.—May 3rd, 1902.—Mrs. W., multipara, *æt.* 35 years. Patient nine months pregnant. She was stooping to micturate, when she "felt something give," and a very severe hæmorrhage followed. The bleeding continued very free during the next hour. When seen the pulse was fair. The vagina was full of clots, and when these had been cleared away the placenta was felt extending right across the os. In front and to the right a small area was found uncovered by placenta, and as the hæmorrhage was still free the membranes were ruptured at this spot, and the bleeding immediately ceased. There were no labour pains for several hours, and when they did come on, the hæmorrhage recurred. The vagina was accordingly packed with iodoform gauze. Thirteen hours after the rupture of the membranes the pains were strong and frequent, so the gauze plug was removed, and the os was found well dilated. Half an hour later the child, a fine healthy female, was born alive. Except for some trouble with the veins of the right leg, the mother made an uneventful recovery.

Case IV.—March 31st, 1903.—Mrs. V., multipara, nine months pregnant. For the two previous days she had a succession of severe hæmorrhages, the first occurring during micturition. As she had lost much blood, and as there was steady oozing from the placenta, the edge of which could be felt projecting over right margin of os, the membranes were perforated, and the bleeding then ceased. The head was presenting in the L.O.A. position, but, unfortunately, the gush of the waters caused a prolapse of the cord. All attempts to replace it failed. The pains now came on regularly, and pulsation was still maintained in the cord. The os dilated very slowly. Seventeen hours later the cord was still pulsating and the os well dilated. An hour later the child was born in the L.O.A. position. The child was extremely cyanosed, but after performing artificial respiration for an hour it began to breathe, and was soon crying strongly. The mother made a good recovery. The form of the placenta was of interest. The main mass of this lay to the right of the os, and was of the battledore variety. Running from this along the anterior margin of the os was a narrow bridge of placental tissue connecting it to a smaller mass of placenta, 3 in. x 4 in. in diameter, lying to the left of the os. It was from this bridge of tissue that the hæmorrhage mainly proceeded. The survival of the child in a case of placenta prævia, in which the cord had been prolapsed for 18 hours, is also to be remarked on.

Case V.—October 10th, 1903.—Mrs. M., 3-para, *æt.* 40 years. Six weeks previously patient had a hæmorrhage, and then another three weeks after that. About 3 a.m. on the 10th October she had a third hæmorrhage. When I saw her several hours later she was still flooding rather freely, and was very faint and collapsed. The os was dilated to the size of 1¼ inches, the placenta lay to the left, and its margin extended half-way across the os. As the patient's condition was very serious, I telephoned for Dr. Bowman to come and administer chloroform. Bozzi's dilator was then put on and the os rapidly dilated, full dilatation being accomplished in about 25 minutes. To follow nature's methods as far as possible the dilator was applied as follows:—One or two turns of the screw were made and kept at that for 20 to 30 seconds, then the screw was rotated back a half-turn, thus taking off the extreme tension from the muscular tissue of the os; then, after about two minutes, the screw was again rotated one or two turns, and again rotated back a half-turn. In this way tearing of the uterine tissue was avoided. The forceps were then applied, and the child, a fine, well-developed female, was delivered, but was stillborn. There were no labour pains throughout. The mother made a good recovery.

As the Bozzi dilator is of comparatively recent introduction, I wish to record my appreciation of its value in cases where rapid dilatation is imperative. The instrument used in this case was Preiss' modification of Bozzi's dilator. I found that it presented no special difficulty in applying or manipulating, and with care need lead to no tearing of the uterine os. It greatly diminishes the risk of sepsis, the child can be delivered speedily, and the necessity for turning and prolonged manual manipulation is obviated. There is a better chance of saving the child, and with the administration of chloroform there is far less shock to the mother, in most cases already greatly weakened by the preceding loss of blood.

THE ACUTE ARTHRITIS OF INFANTS.

By John MacPherson, M.A., B.Sc., M.B., Ch.M. (Syd.), Young, N.S.W.

In 1874, under this title, Sir Thomas Smith described a series of cases in which infants, under a year old, were attacked with a form of suppurative arthritis, attended with disorganisation of the joints, and frequently having a fatal issue. In some instances four of the large joints were involved. Howard Marsh, in Treves' "Manual of Surgery," refers to the subject under the heading of "Epiphysitis," and again mentions it in his Bradshaw Lecture of December, 1902. Three cases occurring in my own practice may be of sufficient interest to relate.

1. Mrs. A.H. was confined by me on July 31st. The baby, a female child, was obviously immature, diminutive and feeble, being born two weeks before the estimated time. On the fourth day a red patch appeared on the dorsum of a finger, over one of the interphalangeal joints, in appearance exactly resembling pernio. Shortly afterwards the same erythematous blush appeared over the wrist, with an enlarged gland in the axilla. The joints rapidly became swollen and distended with pus, which was evacuated. However, they continued to discharge, and became completely disorganised. In quick succession other joints were involved, swelling and tenderness appeared, the joint cavities degenerated into pus sacs; the pus escaping from the joints quickly formed extensive subcutaneous abscesses, which, in turn, were opened and drained. Thus, the two hip-joints, the right shoulder-joint, the sterno-clavicular, and the joints between the articular processes of the vertebræ in the cervical, dorsal (two places), and lumbar regions were totally destroyed. Further, an abscess was evacuated in the lower part of the right side of the thorax, at about the costochondral junction of the eighth or ninth rib. In all, not less than eleven joints, probably more, were attacked by the destructive process. With the implication of the spinal joints marked lordosis appeared. Purulent otorrhœa was added; a fugacious erythema developed, annular and gyrate in form. Finally, thrush, vomiting and abdominal distension supervened, and death occurred on September 4th, five weeks from birth. That so immature and weakly a child should have survived so long was remarkable.

2. Mrs. D.M. consulted me on September 3rd for acute mastitis, her baby, a boy, being then two weeks old. Eventually abscesses formed in both breasts. The baby was brought to me on September 14th, with suppurative arthritis of the left knee, and, curiously, also with an extensive abscess in each breast. The pus was evacuated, but no improvement resulted. A brawny swelling appeared in the right calf. The child was evidently in great pain. Vomiting followed, and the patient died on September 17th, at the age of four weeks.

3. V.M., a female child, aged six months, was brought to me with purulent arthritis of right ankle. The joint was opened, but complete disorganisation resulted. Finally the left hip was involved, and the child died comatose, at the age of seven months.

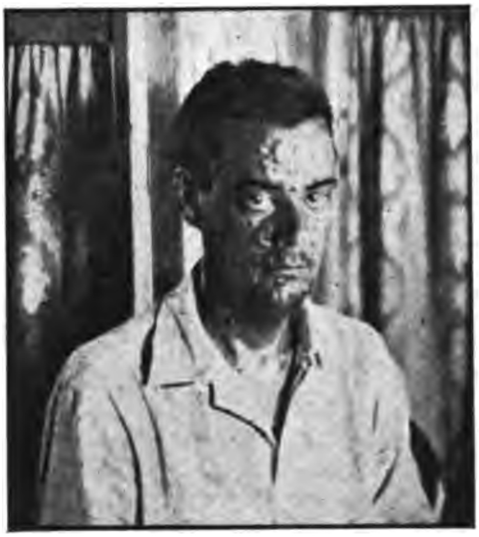
Etiology.—The sanitary and hygienic surroundings of cases 2 and 3 were unfavourable, more particularly of No. 3. The first, however, belonged to the higher circle of social life, and a trained obstetric nurse was in attendance. All are obviously cases of pyæmia. The source of the infective agent and its mode of entry into the system can only be conjectured. In the first case the funis was certainly unhealthy, and the mother had suffered from profuse leucorrhœa. In the second a double acute mastitis might readily furnish pyogenic cocci to the child at the breast.

Pathology.—As to whether the joint affections were primary or secondary to an abscess in the epiphysis (lateral mass of vertebra, etc.) it is impossible, in the absence of an autopsy, to say, although the purulent collection in the first case overlying the costochondral synarthrosis, where no diarthrodial joint exists, is suggestive.

CLINICAL AND PATHOLOGICAL NOTES.

A CASE OF SEVERE SEMI-CONFLUENT CHICKEN-POX, COMPLICATED WITH MULTIFORME ERYTHEMA, IN A MAN AGED 39.

A.B., aged 39, was taken ill on April 11th with symptoms resembling influenza. On the 12th, thinking he might be suffering from malaria, which had attacked him some years before, when in the West Indies, he took 10 gr. of quinine, and sat in, and exposed his face to, the sun, with the object of getting warm. He had also a congested sore throat. On the 13th a few pimples appeared on the back, chest, and face. On the 14th the rash was out more fully, and he was very restless and miserable and depressed. On the 15th the rash of chicken-pox was very thickly distributed over his face, chest, back, in his mouth, and on the scalp, accompanied with well-marked, blotchy, purple erythematous patches. Fever was slight, but there was great restlessness and insomnia, and the irritation of the skin was so great that he sat for several nights in a chair and could not lie down. 15 gr. doses of chloral gave no relief. His face became swollen, his eyes red and watery, with œdematous lids, and the weight of his head became intolerable. The irritation from the moist scabs in the hair greatly added to his discomfort.



The rash continued to come out from the 13th to the 18th. In many places it became confluent, and the whole face greatly resembled smallpox. By the 22nd, many of the erythematous patches had become indurated and raised, and presented the appearance of small boils. One-quarter grain doses of morphia gave great relief.

The condition very slowly improved, and it was over six weeks before he was able to leave the hospital.

Two months after the beginning of the attack, there were circular bald patches on the scalp, purple discolouration of the forehead, and many marked pits, on the face especially. Otherwise a good recovery was made. The first symptoms or appearance of the chicken-pox rash was seen, as it generally is, when looked for carefully, on the roof of the mouth and soft palate.

The most notable features of the case were the confluent condition of the rash, the intense irritability, the insomnia, the swelling and weight of the head, the subsequent boils, the discolouration and pitting, the bald patches, the length of convalescence, and the age of the patient.

The accompanying photograph was kindly permitted, and was taken when the rash was at its height, but before the swelling of the head came on.

P. Herbert Metcalfe, M.R.C.S. (Eng.),
Government Medical Officer Norfolk Island, and Medical Officer to the Melanesian Mission.

MIRROR OF HOSPITAL PRACTICE IN AUSTRALASIA.

ADELAIDE HOSPITAL, S.A.

A Fatal Case of Tetanus.

Under the care of Dr. Poulton.

Reported by T. B. Ashton, M.B., House Surgeon.

P.R.M., a robust, well-grown youth, aged 20, was admitted on December 4th, 1904, suffering from tetanus.

Ten days prior to admission the sole of his left foot was penetrated by an iron nail when walking on the bare feet. Eight days after he noticed stiffness of the lower jaw; and the following day, with increasing lockjaw, there was some difficulty in breathing, from tightness of the chest. He ceased attempting work, and consulted Dr. Ernest Good, who injected 20 c.c. of antitoxic serum, and advised his entering the hospital, but this advice was neglected for about 24 hours.

On admission at 11 a.m. there was marked trismus, with rigidity of the neck muscles; the abdominal muscles were tense and board-like, and there was slight opisthotonos. The temperature was 97°, the pulse 70, regular, of good volume and tension. Under chloroform a small, but deep, punctured suppurating wound of the sole of the left foot was thoroughly cauterised by the Paquelin thermo-cautery and plugged with iodoform gauze; 40 c.c. of anti-tetanus serum was injected below the axilla and the large bowel evacuated by a quart enema at 2 p.m. A scruple of chloral hydrat. dissolved in four ounces of peptonised milk was injected into the rectum and retained. The trismus was less marked, but he complained of dorsal and lumbar pain. Another scruple of chloral was injected at 6 p.m. and ordered to be given every four hours by the mouth.

At 7.30 p.m., under chloroform, the dressing was renewed, the urine drawn off by catheter, and 20 c.c. of serum injected. During the night the chloral was continued, and fluid nourishment was taken well.

At 11 the next morning, under chloroform, the dressing was changed, the urine drawn off, 20 c.c. of serum injected subcutaneously, and the lower bowel washed out, a dark constipated motion following. Tonic spasms gradually increased in severity and frequency, and the temperature gradually rose, attaining a maximum of 106° four hours before death, when it was 104°. Altogether he received 120 c.c. of serum and 210 grains of chloral without any appreciable effect.

REVIEWS AND NOTICES OF BOOKS.

Operative Surgery. By Herbert W. Allingham. Baillière, Tindall and Cox, 1903. Sydney: L. Bruck.

This book is peculiar. It contains no full description of operations, but just a short terse account which deals with a few anatomical details considered by the author to be of special importance. He also adds short memoranda which appears to be practical hints culled from a large experience in operative work. These hints are frequently very suggestive and very serviceable.

The book would not be of much use in inexperienced hands unless as a refresher after full detail had been obtained from a more complete work on operative surgery. The man who does operate frequently would often find suggestions which would be of value to him.

H.C.H.

Essays on Hysterectomy. By J. Bland-Sutton, F.R.C.S., Surgeon to the Chelsea Hospital for Women; Surgeon to Out-patients at Middlesex Hospital. London: Adlard & Co. 1904.

In the preface the author states that he was invited to open a discussion on "Indications for Hysterectomy" in the surgical section at the Oxford meeting of the British Medical Association. As it was impossible, in the time allowed for opening the discussion, to give details in support of his opinions, he has reprinted his opening address, together with some previously scattered essays which embody the evidence relating to debatable points. Like most of Mr. Bland-Sutton's writings, every line is pregnant with his own actual experiences—very little that is second-hand ever appears in his publications. His style is always terse and to the point—no wading through pages of verbiage to glean one or two facts. That the author is competent to deal with his subject will be seen when it is stated that he has performed over 500 hysterectomies! Bland-Sutton has somewhat modified his views as to leaving the ovaries whenever possible in performing hysterectomy for fibroids, and now removes both ovaries in women of 40 and over. The chapter on "The perils and complications of fibroids after the menopause" should be carefully read and studied by every practitioner who still adheres to the teaching of 20 years ago "that uterine fibroids cease to be troublesome with the cessation of menstruation," as many instances are given of the fallacy of that teaching. The last essay on the "inimicality of pregnancy and uterine fibroids" will be of special interest to readers of the *Australasian Medical Gazette* in view of Mr. Thring's paper on "Myomectomy during Pregnancy," which appeared in our November issue. Mr. Bland-Sutton's view agrees with that expressed by Mr. Thring that pregnancy should be no bar to the removal of a uterine fibroid if so placed as to interfere with delivery, or if undergoing change.

In reviewing a publication of such general excellence it is refreshing to be able to find a few things to criticise. There are, however, a few matters of detail which sound strange to Australian surgeons, as, for instance, the following:—"Catgut is a very dangerous material; it cannot be boiled and should be discarded." Catgut is almost exclusively used by some of our leading surgeons with excellent results, after having been *boiled* in absolute alcohol. Again the use of silkworm gut as a buried suture in the abdominal wall is generally condemned by Australian surgeons, as chromicised catgut properly prepared answers all the requirements and is less likely to reappear in six months' time. Some of us would also take exception to the statement that in cancer of the cervix uteri the vaginal is the best route, as it would be impossible to remove the glands. It is in these cases that the combined operation appears to be indicated, viz., to commence per vaginam and to free the cervix, then to complete through the abdomen, and if necessary remove any infiltrated glands found lying along the iliac veins.

As regards the use of rubber gloves in operating, the practice here is rather to use them in septic cases, as experience shows that, provided the hands be kept out of pus, they can be rendered sufficiently sterile not to interfere with the most perfect results in large series of cases. The opening address delivered at Oxford on the "Indications for Hysterectomy and the methods of performing it," is a matserpiece for lucidity and for the amount of knowledge crowded into 29 pages. It will well repay perusal.

W.H.C.

Obstetric and Gynæcologic Nursing. Second edition. By Edward P. Davis, A.M., M.D., Professor of Obstetrics in the Jefferson Medical College and Philadelphia Polyclinic. 12mo. volume of 402 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders and Company. 1904. Melbourne: James Little. Price, 9s.

A notice of the first edition of this book appeared in the *Australasian Medical Gazette* for April, 1902. That a second edition has been called for so soon shows that the work has been appreciated by those for whom it was written. The present edition has been thoroughly revised and new material added. The duties of nurses in the two branches of nursing dealt with are very clearly set forth. The illustrations are numerous and good. An appendix contains a valuable dietary, and directions for the preparation of surgical supplies. The book can be confidently recommended to both obstetric and gynæcologic nurses. W.H.C.

QUESTIONS AND ANSWERS ON MIDWIFERY FOR MIDWIVES. By A. B. Calder, M.B., M.R.C.S. Pocket size; price 1s 6d net. London: Baillière, Tindall and Cox. 1904. Sydney: L. Bruck.

These questions and answers on midwifery, together with the syllabus of lectures for the "L.O.S.," have been published at the request of nurses who have attended the various classes in the Fulham Midwifery Training School, and who say they have found them very helpful in their preparation for the London Obstetric Society's examination. The *questions* asked are some that have actually been put by the Society, and the *answers* being concise and to the point should prove of great assistance to those about to present themselves for such an examination, in showing them how to answer questions. The work, which is naturally very condensed, is not intended as a text-book for midwifery nurses, but merely as a means of refreshing the memory before going up for an examination. It is well adapted for the purpose intended. W.H.C.

THE NERVOUS AFFECTIONS OF THE HEART. By G. A. Gibson, M.D., D.Sc., F.R.S.E., F.R.C.P. (Edin.), Physician to the Royal Infirmary, Edinburgh, etc. Edinburgh and London: Young J. Pentland. 1904. Sydney: Angus & Robertson.

This volume comprises the Morison Lectures delivered before the Royal College of Physicians of Edinburgh in 1902 and 1903. The author to some extent disarms criticism by stating that his aim has been suggestive rather than exhaustive, since in the short space of six lectures upon the nervous affections of the heart it has been impossible to do otherwise than treat the subject in this way. The historical introductions to the lectures in which the author traces the development of our knowledge on various points are interesting, but we think that some of the space thus occupied might have been utilised in fuller discussion of the disputed points raised in these lectures.

The first section of the volume comprises three lectures on the sensory disturbances, the first being devoted to a study of the clinical phenomena, the second to a discussion of the pathology, and the third to the therapeutical considerations. There is a good description of the various kinds of cardiac pain, and angina pectoris naturally is considered at some length. The author strongly condemns the use of the term "pseudo-angina," and criticises Osler for his use of the expression. We think he unnecessarily labours this point, for we can see no objection to the use of a term which simply implies pain of anginal character, but not dependent on organic disease of the coronary arteries or cardiac nerves. There are some good illustrations of the distribution of the pain in angina pectoris, and the interesting facts pointed out by Mackenzie and Head, that these cutaneous areas are first hyperæsthetic, and then later become more or less anæsthetic, are fully recorded. The discussion of the pathological conditions giving rise to cardiac pain is very full, and there is an elaborate account, illustrated by excellent diagrams, of the innervation of the heart. The lecture on the therapeutical indications is hardly so satisfactory, and it would be difficult to gather from this much useful information on the treatment to be adopted in any particular case of cardiac pain. The various vaso-dilators are discussed, and nitro-glycerine, which is pronounced to be the most potent of this class, is recommended in doses of ½ to 2 minims of the 1 per cent. solution at first; but when the author states that in many instances as much as 10 minims every four hours may be exhibited, we are inclined to doubt the wisdom of giving a patient this drug in such large doses. In our experience in many patients the use of one minim of the solution causes unpleasant sensations of throbbing at the back of the head, and occassional intense headaches. Dr Gibson still maintains that clinically the iodides act as vaso-dilators, although Stockman has shown experimentally that the effect of these drugs in this direction is almost infinitesimal.

The second section of the book is devoted to the motor disturbances of the heart, viz., rate, rhythm, and force, and these lectures are full of suggestive points. Dr. Gibson emphasises Dr. Mackenzie's remarks that irregularity of the pulse *per se* is not of such bad prognostic significance as is usually believed, and mentions, what is well known, that patients may have irregular heart action all their lives without being much the worse for it. Toxic conditions, whether microbic or chemical (under the latter are included alcohol, tobacco and tea), are credited with having much sinister influence in the determination of disturbances of the heart. We think, however, that the beneficial effect of the so-called cardiac tonics, as digitalis, strophanthus, etc., is exaggerated in the treatment of these toxic conditions. No one can dispute the immense benefit to be derived from the use of digitalis in failing compensation of the heart in valvular disease; but we think that much of the benefit attributed to digitalis and its congeners in the treatment of toxic conditions is due to the abstention from the drug (if of chemical nature), and to the rest and dieting, and possibly the strychnine, which is generally given in combination with digitalis.

These lectures contain much of practical and scientific interest, and are well worthy of careful study. G.E.R.

OUR NATIONAL RECREATION PARKS. By Nicholas Senn, M.D., etc., Surgeon-General of Illinois. 8vo. pp. 147, with 50 illustrations. Chicago: W. B. Conkey Co. 1904.

The parks are the Yellowstone, in the north-west of Wyoming, 3344 square miles in area, and the (by comparison) tiny one of the Yosemite Valley in California. The author restricts his professional advice as to the health-giving value of parks to the brief introduction. In a series of brief chapters, illustrated by excellent photographs, he describes his itinerary of a portion of the Yellowstone, pleasantly discoursing on the geysers, rivers, lakes, waterfalls and snow-capped peaks of this American Switzerland. The exquisite scenery of the Yosemite, depicted in the illustrations, is chattily dilated upon, and throughout the book are natural history notes and anecdotes in regard to the fauna, the vegetation, the giant trees of the Sierras, forests and rainfall, and so on. Here and there the author breaks into such homely topics as "supper for a silvertop bear," with photographs of "bear boarders." The work is of the best class of guidebook, very readable and, we have no doubt, very reliable. J.H.M.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH JANUARY, 1905.

THE AUSTRALASIAN MEDICAL CONGRESS.

AT the Australasian Medical Congress to be held in Adelaide next September, some important questions are likely to be raised affecting the present status of the Congress, and it is desirable in view of the importance of the question that our readers should be in full possession of the facts so that they may be carefully considered prior to that meeting.

It has been recognised for some time past that the triennial meetings of the Congress as at present arranged do not achieve all that is possible in connection with the organisation of the profession in Australasia; and it has been suggested that the triennial meetings of the Australasian Medical Congress might with advantage be transformed into annual or biennial meetings of all the Australasian Branches of the British Medical Association. A circular has accordingly been issued by the Council of the New South Wales Branch to the other Branches in Australasia suggesting this change and inviting an expression of opinion on the question.

Two arguments in favour of this have been adduced. First, that the present Triennial Congress has no continuous executive authority which is concerned in carrying out the important resolutions passed at the Congress meetings; consequently these have become in most instances merely dead letters, and the definite expression of opinion by the profession on important questions has been practically ignored. If, however, the Congress became a meeting of the Australasian Branches of the British Medical Association the individual branches in the different States would be directly concerned in carrying out the policy decided upon at such meetings and in securing the attention of the public to the expressed opinion of the profession.

The second argument is that the transformation would tend materially to strengthen the organisation of the profession. The British Medical Association is the largest and most influential medical organisation in Australasia. Its interests are purely mutual; it aims at the consolidation and organisation of the profession, the furthering of social and professional intercourse amongst its members; it seeks to put down abuses, to uphold the rights of the profession, and to advance scientific medicine. Hence it is to the best interests of every medical practitioner to associate himself with his fellow-practitioners in such an organisation; and we feel that a great deal more may be accomplished in the future than has been in the past if the members of the profession at large as well as the members of the British Medical Association will arouse themselves to take a deeper personal interest in the management and affairs of this Association.

It is not to be expected that such a change as has been suggested will be effected without some opposition. We firmly believe, however, that there is no insuperable difficulty in the way, and that with some mutual concessions such an alteration can be effected as will ultimately prove of immense benefit to the whole profession in Australasia. We understand that this proposal is now being carefully considered by the various Branches of the British Medical Association in Australasia, and if it be favourably received there is no doubt that this year will witness a great advance in the membership and status of this Association.

MEDICAL MEN AND DEATH CERTIFICATION.

At a recent inquest on the circumstances attending the death of an infant at the Sydney Benevolent Society's Hospital for Women and Children, the City Coroner took occasion to censure the medical officer for giving a certificate of death. He implied that, in his opinion, the medical officer had failed in his duty in not withholding a certificate of death, and in not notifying the authorities of the "circumstances attaching to the case." The Coroner is reported to have also stated that "if the practice of the Benevolent Asylum is to give certificates of death under circumstances such as attend the present case, without informing the authorities, then the sooner it ceases the better." These serious charges called forth a letter in the daily press from the secretary of the Benevolent Society warmly repudiating the charge of neglect against the society, and pointing out that the death was immediately notified to the Government (we presume he means the State Children's Relief Department, who were in possession of the facts of the case, and on whose order the child was admitted to the hospital), and that the medical certificate which was issued suggested the possibility of neglect as, at any rate, contributing to the child's death.

This case opens up the question of the responsibilities and duties of medical men in issuing certificates of death. In our last issue we published, in response to a request from a country practitioner, a carefully worded reply from Dr. R. H. Todd, who is well known as a medical practitioner and as a barrister, and who for some years filled the position of Deputy City Coroner, in which he sets forth very clearly the position of medical men in this matter, and we would commend his statement to the careful study of our readers. While every member of the community has a duty to perform in assisting in the detection and punishment of crime, it is no part of a medical man's duty to act as a detective, and pry into all the circumstances surrounding the death of a patient, whom he may have attended in his last illness. It is clear that he is not bound by any law to withhold a death certificate, although he may feel justified in certain cases of suspicion in declining to certify.

In the case under notice the whole of the circumstances were known to the State Children's Relief Department, and under the State Children's Protection Act an inquiry is required into the death of any child under their care. In giving the certificate of death, in which the possibility of neglect was insinuated, the medical officer acted in a manner perfectly consistent with his duties as a medical practitioner. No right-thinking person would suppose that the medical officer, Dr. T. Storie Dixson, or the Benevolent Society had any intention or desire to conceal a crime, and we consider the criticism passed on Dr. Dixson and the suggested neglect on the part of the officials of the Benevolent Society as uncalled for.

THE MONTH.

The Sydney Milk Supply.

Public attention has again been drawn in the daily press to the milk supply of the metropolis of New South Wales. Several prosecutions of milk vendors for selling milk adulterated with various amounts of water have recently taken place, and in some cases heavy fines have been imposed. It appears, however, that some of the metropolitan municipal councils are somewhat remiss in the performance of the simple duty of seeing that the milk supplied to the residents is not adulterated with water. As a consequence, some milk vendors continue to supply milk adulterated beyond the limits allowed by law until the municipal authorities arouse themselves and have samples of milk analysed and these offenders against the law prosecuted. Quite recently eight samples of milk were taken in the Borough of Paddington and submitted to the Government Analyst for report. The result of his analysis showed that the public, when buying milk, was purchasing at the same time up to 17 per cent. of water, and it is stated that four prosecutions for adulteration would be sustained. The importance of a pure milk supply has been emphasised in our columns on previous occasions, and we hope that now that public attention has been again directed to this question, the municipal authorities will continue to exercise a careful supervision over the milk vendors in their respective districts.

The Maintenance of Charitable Institutions in Queensland.

Attention has already been directed to the difficulty of securing adequate support for the charitable institutions in Queensland. We learn that the committee of the Kennedy Hospital at Bowen have written to the Treasurer stating that owing to the reduction of the endowment and the want of funds it has been decided to close that institution. A deputation representing the Brisbane Ambulance Brigade recently waited on the Home Secretary to draw his attention to its financial position, in view of the reduction in its endowment. The Home Secretary stated that two-thirds of the people of Brisbane neglected their duty to support the hospitals and charitable institutions, and in view of the fact that the system of depending on voluntary support was failing, he stated that in all probability the Government would be compelled to step in and introduce some form of compulsory support.

The Treatment of Pulmonary Tuberculosis in Western Australia.

From a report recently furnished to the board of management of the Perth Hospital, it appears that out of 83 medical cases in that institution 17 were cases of pulmonary tuberculosis. Dr. Lovegrove, a member of the board, commenting upon this statement, pointed out the difficulty of effectively treating this class of case in the hospital, and suggested that the Government should be asked to introduce some measures to prevent the influx of cases of this disease from abroad. We learn that the Government proposes to place a number of the consumptive patients from Perth Hospital at Newcastle and some at Coolgardie. It is also proposed to build a sanatorium exclusively for curable cases upon an elevated site on the Darling Ranges.

Women Doctors as Hospital Residents.

Dr. Susie O'Reilly, daughter of Dr. W. W. J. O'Reilly, honorary consulting physician of Sydney Hospital, who obtained second-class honours at graduation at the recent examinations at the University of Sydney, was a candidate for one of the positions of resident medical officer at the Sydney Hospital. This application came before the board of directors at their first meeting this year. The application led to a long discussion in which the various pros and cons were fully considered. Some members of the board are reported to have stated that in cases where women doctors have been appointed as residents in hospitals, matters had not run smoothly, as the nurses seemed inclined to resent the authority of a woman doctor, and patients in certain cases preferred not to have her attendance. It was eventually decided, by a small majority, not to appoint Dr. Susie O'Reilly. While a woman doctor may be admirably suited for the position of resident medical officer at a women's or children's hospital, we think that she is hardly suitable for such a position in a large general hospital like the Sydney, and it seems improbable, in view of the present state of professional opinion, that any such appointment is likely to be made in the near future.

The New Coroners' Act.

The new Coroners' Act for New South Wales came into force last month. By this Act it is provided that all inquests which were formerly required to be held by a coroner with a jury will now be held by the coroner sitting alone, with three exceptions, namely, that a jury is to be summoned at the request of a relative of the deceased, the secretary of any society of which the deceased was a member, or by order of the Minister of Justice. The responsibilities of the coroner are accordingly increased, since the same powers are vested in him when sitting alone as when sitting with a jury. The Act also provides that the jury is to consist of six men only, instead of twelve, as formerly.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

The regular monthly meeting of the Branch was held at the Royal Society's Room on Friday, 16th December, 1904; Dr. McCormick, President, in the chair. There were 34 members present.

The minutes of the previous meeting were read and confirmed.

The President announced the election of Drs. Kuipers and Bobardt, and the nomination for election of Drs. M. H. Harris, J. McBain Ross, and H. R. Bell.

Dr. Newmarch, in the unavoidable absence of Dr. William Chisholm, showed a little girl, now aged 4½ years, who during infancy had been under treatment for a very extensive nævoid condition of the face. The case first came under the care of Dr. Chisholm at the Sydney Hospital, in September, 1900. The tumour —for such the angiomatous condition might rightly be termed—extended over the whole of the right side of the face. occluded the eye on that side, and spread over the scalp. There was no visible pulsation, but when the child cried the swelling increased and became turgid. The little patient had been under treatment previously at the Moorcliff Eye Hospital, where the right temporal artery had been tied. On September 23rd, Dr. Chisholm tied the right external carotid, and though some diminution of the swelling perhaps occurred at first, no real benefit ensued. Electrolysis was then patiently practised, the needles being introduced in various parts of the tumour, with intervals of about 14 days. Dr. Chisholm leaving for England, the case came under Dr. Newmarch's care in February, 1901. At this time little improvement could be noted, and the case seemed hopeless. The treatment previously adopted by electrolysis was persevered in until the beginning of May, 1901, when, seeing the quite unsatisfactory state of affairs, it was thought that other means were justifiable. The idea occurred to Dr. Newmarch to apply the actual cautery, segments of the swelling being lined off carefully, and the surface of these segments lightly seared. When the patient was last seen in June, 1901, the tumour had decreased in size, but the general appearance was not hopeful; the eye was nearly closed, and the surface covered with eschar and granulations. General drections were given to the mother to apply dressings, and an inward hope expressed that we would not see the case again. The patient practically passed out of knowledge until a few days ago, when she was brought to see Dr. Newmarch. No other treatment had been adopted; the swelling gradually decreased. The present condition was that in lieu of the fearful disfigurement previously existing, the side of the face and forehead was covered with a white scar tissue, fairly pliable, and without noticeable contraction; the eyelid could be opened and closed naturally, and the swelling and nævoid condition totally absent. Dr. Newmarch added that it was certainly one of the worst cases of its kind that had come under his notice. It was the first and only time that he had ventured to adopt such treatment, and hoped that his opinion as to the result was shared by the members present. The child could well pass muster now, and would not live the life of misery to which it was doomed had treatment been of no effect.

Dr. W. H. Read asked Dr. Newmarch whether he had applied the actual cautery to the circumference only of the nævus, or over the whole surface?

Dr. R. B. Wade said Dr. Newmarch's case was a good example of the inutility of electrolysis as a curative agent in the nævi of the venous type. Instead of the text-book effect of causing extensive thrombosis in the vessels lying between the needles, with their subsequent absorption and obliteration without cicatrix, the only result he had found with electrolysis was that it acted purely as a cautery, and a poor one at that, owing to the smallness of the needles. One good it did do, and that was that in the very rapidly growing venous nævi, if used at the spreading edge, it will bring the growth to a standstill. Unless there were some contra-indication, as in Dr. Newmarch's case, an extensive growth and a very young child unable to stand the shock of its removal, excision, he thought, gave the best result, and, if the growth were on the face flap, transplantation or skin grafting should be additional measures.

Dr. Litchfield and Dr. Hipsley read a paper on "The Relation of Shiga's Bacillus to the Summer Diarrhœa of Infants." (See page 10.)

Dr. Millard was glad to have the opportunity of thanking Drs. Litchfield and Hipsley for their extremely useful and interesting paper. The importance of the subject was shown by an examination of the statistics of infantile mortality. Taking the returns for New South Wales for the year 1903, he found that while the births during the year were 35,966, the deaths of children under one year of age amounted to 3969. Of these deaths, no less than 1478 were assigned to causes which may fairly be suspected to have been of diarrhœal nature, variously named in the death returns as diarrhœa, 383; tabes mesenterica, 57; dentition, 73; enteritis, 1025; besides which there were other deaths from such indefinite causes as malnutrition, 52; diseases of stomach, 48; atrophy, debility and inanition, 475—a large proportion of which should, no doubt, be more correctly assigned to diarrhœa or dysentery. These figures showed that for every 1000 births during 1903 there were 110 deaths of children under one year of age, and that 50 per cent. of these deaths were due to causes connected with the digestive tract. Further demonstration of the importance of the subject was unnecessary, and they were to be congratulated as a society on the scientific manner in which the bacteriological aspect of the matter had been presented by Drs. Litchfield and Hipsley. He was the more interested in this matter as having himself quite recently had to do with an acute case of dysentery in a child of 18 months which presented the typical features of the disease. The onset was sudden, with severe pyrexia, up to 106·2 one evening, and the passage of very frequent stools composed of mucus streaked with blood. From this mucus on the second day he made agar cultures from which he succeeded in isolating a bacillus which culturally and morphologically showed all the characteristics of the type Shiga bacillus in the laboratory of the Health Department. Some blood taken at the same time failed to clump the Shiga bacillus, but this was probably because at that stage of the illness, the second day, the agglutinins had not yet been produced. It appeared clear that he had to do with a case of dysentery, associated with, and presumably caused by the Shiga bacillus, but whence the bacillus was derived he could form no definite idea. The child lived in a remote and sparsely-populated suburb, Wahroonga, had not been away from home, and had had absolutely no communication with any other child except an elder brother, five years old, whose health remained good. The milk supply was from a local dairyman, and the speaker had reason to believe that it was bacteriologically very good, having on several occasions found the bacterial content per c.c. extremely low. He could only imagine that the bacillus had been derived from the soil—the child was in the habit of putting dirt into his mouth—having persisted possibly in a saprophytic existence since some previous infection of the soil unknown to him. As was well known, it was demonstrated many years ago by Ballard that rise in mortality from summer diarrhœa corresponded with a rise of temperature, not of the air but of the soil, as shown by the 4 ft. thermometer, and it seemed only reasonable to suppose that the effect was produced by the revival of the activity of the causal organism, which in this case he believed to have been the bacillus of Shiga. Obviously it was of prime importance to know if possible the conditions which favoured the activity of this bacillus, its distribution, and the proportion of cases of summer diarrhœa and dysentery which were ascribable to it. Here were opened up several wide questions requiring much patient labour for their investigation; but as regards the last, much might be done by the agglutination test towards making clear the extent of the connection of the Shiga bacillus with cases of summer diarrhœa. Not much trouble was involved in taking a pipetteful of blood from a patient, and he thought he could speak for Dr. Tidswell as well as for himself when he said they would be very pleased to apply the test with their type Shiga bacillus to any samples of blood that might be forwarded to the laboratory of the Health Department by medical practitioners. By a collective investigation of that kind something at least might be accomplished.

Dr. **Sinclair Gillies** said it was only fitting that the first discovery of Shiga's bacillus in Australia should be made in the University of Sydney. He hoped they would continue the work they had begun, and in doing so would in future contributions give more clearly the clinical features of the cases in which Shiga's bacillus was found. The authors would scarcely claim that more than a moderate number of those cases classed as summer diarrhœa were due to this particular bacillus, and it was most important to be able to diagnose such cases early. Serum diagnosis would be of little help, as clumping might not occur till comparatively late, and where an anti-serum was used in treatment it became necessary to form an accurate diagnosis early. To judge of the efficacy of an anti-serum it was essential to use it only in cases in which there was no doubt as to diagnosis. Diagnosis by culture would at present be too long a process to be of value in cases where treatment to be of value must be prompt.

Dr. **Wade** said the discovery of the presence of the bacillus dysenteriæ in cases of infantile summer diarrhœa had placed an altogether new face on their picture of that disease. How frequently it did occur was shown by the work of Duval and Basset, who demonstrated its presence in 45 out of 52 cases; these were all, however, as far as could be gleaned, cases of ileo-colitis. La Fetra and Holland found it to be present in 62 out of 64 cases of diarrhœa, most of which contained no blood in the stools, many no mucus, and some had been clinically diagnosed as merely cases of diarrhœa due to food disturbance. The agglutination test would not be of much use as a guide to treatment, for the reaction did not, as a rule, appear before the seventh day, and its appearance might be delayed until the third week, and again the different varieties did not react satisfactorily with the serums of one another. The varieties that have been so far differentiated were the Flexner's, that splits mannite with the formation of an acid; the Shiga's, that did not alter mannite; and a third that, when grown on peptone, formed indol. All these varieties had been found in different cases in the same epidemic. The serum treatment had not yet been a success, due, no doubt, to the different types of organisms, and also to the fact that once they have lodged in the intestinal wall and damaged it, it was further reinfected by others of the numerous classes of organisms that infested the intestinal canal. That the infection was not carried by the food was seen by the fact that breast-fed babies were not quite immune to it, and that it was of common occurrence in those fed on freshly-prepared sterile foods, such as condensed milk or some patent foods. Holt had found it occur as an epidemic in one of the wards only of an institution devoted to the care of babies, although they were all fed from a common milk supply. The probability was that, like many others, such as influenza, measles, scarlet fever, tubercle, etc., it was an air-borne infection, and he believed that the work of the health authorities in the near future, in cities, at least, would be devoted to a crusade against the dust.

Dr. **Flashman** considered the readers of the paper had done good service in calling the attention of the profession in Australia to the importance of this matter. They had pointed out the large number of child lives annually lost through intestinal troubles, and had shown that a fair proportion of these, at any rate, were in all probability lost through the action of a bacillus practically identical with the bacillus dysenteriæ of Shiga. It was, of course, of very great importance to determine which particular clinical type of intestinal disease in children could be ascribed to the bacillus, for then they could subject the patient to serum treatment which had been proved to be of great value in adults. There were some reasons for considering the bacillus which they had been shown to-night as only a relative of the true Shiga bacillus. In the first place, dysentery as caused by the Shiga bacillus was a definite entity, just as was enteric fever, and had definite pathological lesions. It did not appear that the changes found in the bowels of children dying from summer diarrhœa conform to that type. Another reason for considering it a variety rather than the real organism was that it had never caused a severe epidemic here. In Japan, in 1897, 90,000 persons of all ages were attacked, and of these 20,000 died. If it were contended that this organism of infantile diarrhœa was identical with Shiga's, were they to consider that they were here liable to a similar devastating outbreak? In Europe it had been shown there were many varieties, and an immune serum produced by means of one variety had very little effect on another variety. In view of possible future serum treatment here, it was of great importance to determine definitely which variety they were dealing with, and if necessary use it in the immunisation of animals whose serum was to be used as a therapeutic or prophylactic agent.

In reply, Dr. **Litchfield** said that he was inclined to believe that all the severe cases of summer diarrhœa were due to the dysentery bacillus. He agreed with the figures quoted by Dr. Millard, but thought that the majority of deaths certified as infantile atrophy and inanition (which numbered about 600 for the State) were post-diarrhœa, and should be added to the diarrhœal mortality. He agreed with Dr. Wade that the food was not the chief vehicle of the germ. The best article on the epidemiology of the disease he had seen was by Meredith Richards, Medical Health Officer for Croydon, England. That gentleman's conclusions were that the source of infection was local, that it was connected with organic matter in the soil, and was spread by means of the dust; for instance, he found that where there were no thoroughfares there was no diarrhœa, although the other surroundings were unfavourable.

Dr. **Corlette** read a paper on "A Review of the Subject of Starch Digestion in Young Infants." (See page 1.)

Dr. **Litchfield** said that he regarded Dr. Corlette's paper as a very important one. He had often wondered who was first responsible for the statement that infants were unable to digest starch, for his clinical experience was that within fairly wide limits they could do so. He remembered one child that had done exceedingly well for six months on nothing else but oatmeal-water gradually thickened. It was a fact that, in spite of the teachings of the medical profession, the consumption of the "pappy" foods among infants was increasing. Statistics seemed to show that the consumption of starchy foods had very little to do with infant mortality. Broadly speaking, there was no diarrhœal mortality in the winter months, and yet children consumed just as much starch in winter as in summer, thus showing that something more was required to bring about fatal results.

Dr. **Hankins** moved that this meeting approves of the formation of a Medical Practitioners' Widows and Orphans' Fund.

Dr. J. A. **Dick** seconded the resolution, which was carried.

Victoria.

The annual meeting of the Victorian Branch of the B.M.A. was held on Thursday afternoon, December 15th, at the rooms, 178 Collins-street, Melbourne.

Dr. R. E. Weigall (president) occupied the chair.

The annual report, as follows, was read by the Secretary and adopted, also the balance-sheet.

In presenting the annual report the Council have great pleasure in congratulating the members of the Branch on the greatly improved prospects for the future, and have every reason to believe that the Branch will soon again regain the proud position it formerly held.

During the year death has robbed not only the Branch but the State of Victoria of one of its greatest workers, Dr. Gresswell, who was not only twice our president, and was also always ready to advise and assist us in every way possible. His loss to us cannot be estimated.

A large number of most interesting and valuable papers were read at the monthly meetings. The Council is greatly indebted to the various gentlemen for the pains they took in preparing them. It is to be deeply regretted that the attendance at the monthly meetings was more than once not all that could be desired. If the members wish to keep the Branch going they should endeavour to attend at least two or three meetings in a year. If all would only do this, and bring a friend or friends with them, the Council would be greatly assisted and helped in their work.

Financially, the Branch is in a most flourishing condition, thanks to the care exercised over the funds by your hon. treasurer.

During the last six months negotiations were opened up with the members of the 1900 Council for the purpose of bringing about a reconciliation with that body. The members of the Branch, as you are aware, have been kept posted from time to time on the progress of the negotiations. It is to be regretted, however, that up to the present they have had no result.

Owing to ill-health our old and esteemed friend, Dr. Neild, resigned his position on the Council. We greatly regretted the necessity for his doing so, for at all times his advice has been most valuable. On his birthday a dinner was tendered to him from amongst the members of the Branch and a few of his personal friends. This was a great success, and was a pleasant mark of that appreciation in which our worthy guest is held by the profession.

We have much pleasure in informing you that Professor Osborne, of the University, consented to take the position on the Council rendered vacant by Dr. Neild.

The Ballarat and Western District Branches continue to flourish under the skilful guidance of their Councils. The Tasmanian Branch, however, is still in a state of suspended animation. It is to be hoped that an endeavour will be made during the forthcoming year to establish a strong branch in that State.

A suggestion has been considered by your retiring Council that it would be of great advantage to the members of the Branch if arrangements could be made with experts for a series of courses on the latest advances in medicine. Further consideration of this matter will be given by your new Council.

In conclusion, your Council wish the members the compliments of the season, and trust that the new year may see the Branch on the high road to success.

BALANCE-SHEET FOR THE YEAR 1904.

Assets.			
Members' subscriptions.. ..	£196	7	3
London capitation grant ..	9	12	0
	£205	19	3
Liabilities.			
B.M.J. and *A.M.G.*	£161	6	6
Printing, etc.	13	3	0
Exchanges	1	17	2
Postage, etc.	3	7	8
Rent	6	0	0
Sundries	1	2	0
Bank charges	0	10	0
Balance	18	12	11
	£205	19	3
Statements of Assets and Liabilities.			
Balance, 1903	£6	14	8
Balance, 1904	18	12	11
Bank draft	163	12	5
Tasmanian Trust Account ..	20	2	2
	£209	2	2
Rent	£2	0	0
Balance	207	2	2
	£209	2	2

Geo. Cuscaden, Hon. Treasurer.
Audited and found correct,
Rich. G. Black, Hon. Auditor.
Dec. 14th, 1904.

The Council held during the year 12 meetings. The attendance was as follows:—Dr. Bryant, 11; Dr. Cuscaden, 10; Dr. Fox, 9; Dr. Greswell, 1; Dr. Henry, 10; Dr. Macansh, 3; Dr. Neild, 1; Prof. Osborne, 1; Dr. Vance, 12; Dr. Weigall, 9; Dr. Willis, 1.

The following members were elected to the various offices for the ensuing year:—H. W. Bryant, L.R.C.P. and S. (Eng.), president; Geo. Cuscaden, L.R.C.P. and S. (Eng.), vice-president; A. S. Joske, M.D. (Melb.), treasurer; W. B. Vance, M.B. (Melb.), hon. secretary. Members of Council: Drs. R. Weigall, W. R. Fox, Prof. Osborne, Drs. Macansh, Henry, Willis.

Dr. R. E. **Weigall**, the retiring President of the Victorian Branch of the B.M.A., invited the Council and members to a dinner on Thursday evening, December 15th. After the toast of "The King" had been duly honoured,

General **Williams**, C.B., proposed "The British Medical Association." He said that it was the thirty-year jubilee of the signing of the articles of the B.M.A. Since that time the Association had spread all over the Empire. At the present time in England, Scotland and Ireland there were 39 distinct main branches, which were split up into many other branches. In India there were seven distinct main branches, In the Colonial Dependencies there were 20 branches, making 66 branches of the B.M.A., all working on the same lines, imbued with the same aims and aspirations. What has this Association done? Brought all right-thinking medical men together, all striving and endeavouring to obtain the best for humanity and science, and to disseminate knowledge through all its branches. The British Medical Association, by uniting the profession and organising it, had thus been of great service; and in his capacity as head of the Army Medical Services he had to thank the Association. The scheme by which the profession would come to the aid of the Empire in an emergency embraced the consultants of hospitals, the executive staffs, and the general practitioners, and these would constitute a large reserve at the base in their own hospitals. The military system would cause very little inconvenience, and would not interfere with their hospital duties. He gave many points on the organisation of the Medical Services, drew attention to General Ian Hamilton's remarks *re* the position of the British Empire at the present time, and finally declared that the general organisation and binding together of the profession was the only way to combat the many malign influences that were at work to the detriment of medical practice.

Professor **Osborne** replied to the toast, thanking General Williams for the manner he had proposed the toast, and the way he had clothed his thoughts. The gulf between theory and practice had been bridged over by this Association, and they must go hand in hand for the welfare of the future. Personally, he was under a great debt of gratitude to the B.M.A., which had helped him financially in some of his research work. As one working in the theoretic medical field he would be glad to bring forward to the notice of the members all the latest scientific knowledge, and to do anything he could to further the interests of the Branch. Referring to the English Army Medical Corps, he considered that it had made wonderful strides, and was a great administration, and he did not see any reason why it should not be the same in the Commonwealth.

Dr. **Weigall** proposed "The New President, Dr. H. W. Bryant." He reviewed the position of the Branch, pointing out the financial position, and that in the interests of the federation and union of the profession the Branch must do its best to ignore metastatic inflammations and to work hard for strengthening its position. It was a pleasure and delight to propose the toast of the incoming president. As members knew, an attempt had been made at a reconciliation with the members of the 1900 Council. Deeply as he regretted the breaking off of the negotiations, to-night he was pleased in so far as it gave him this great pleasure of welcoming our genial friend, Dr. Bryant, as the incoming president. Dr. Bryant had worked well for the Association during the last four years as member of Council, press correspondent, and for the last year as vice-president. After further eulogistic remarks, Dr. Weigall formally proposed the toast, which was drunk with musical honours.

Dr. **Bryant**, in reply, thanked the members for their reception of the toast. He referred to the great assistance the Branch had received from former presidents, notably the late Dr. Gresswell and Dr. Weigall. He expressed his regret at the failure of the negotiations with the Council of 1900, and realised now that the main object must be to enhance the value of the monthly meetings. He welcomed the offer of Professor Osborne to do what lay in his power, and he hoped that a series of demonstrations and lectures from the leading specialists would be arranged for the ensuing year. He assured members that any failure on his part would not be from want of will.

Dr. **Cuscaden** proposed the toast of "The Retiring President, Dr. R. Weigall." He congratulated him on the admirable manner he had always carried on the duties of his high office on every occasion, with credit to the Branch and himself.

Dr. **Weigall**, in replying, referred to himself as the figure-head of a sailing ship, which used to be looked upon by the superstitious sailors in olden times as capable of guiding the ship across the seas, but all the same it was the men on deck who really did the navigation. The Branch owed a great deal to the care and attention given by the secretary (Dr. Vance) and the treasurer (Dr. Cuscaden.) Now he was on the deck he would do his best to help the ship along, whether the passage was stormy or otherwise.

Dr. **Macansh** proposed Dr. Vance, the secretary's, health. As an ex-president he could testify to the hard work and energy displayed by Dr. Vance, and this made the president's position very simple indeed.

Dr. **Weigall** referred to the great loss sustained by the Association by the death of our last year's president, Dr. Gresswell. He was a man esteemed by all, courteous to all, and loved and respected by all who had the benefit of close acquaintance with him. The absence to-night of Dr. Neild and some of the oldest members of the Association was due to this loss, and he wished to express the sincere regret and sympathy of the Association with Mrs. Gresswell in her sad time of trouble.

We have been requested to publish the following copies of correspondence between the present Council of the Victorian Branch and representatives of the Council in 1900:—

St. Kilda, 16th May, 1904.

Dear Mr. Syme,—You may have noticed that one of the objects of the British Medical Association is to promote a good feeling among its members, and in the event of a misunderstanding to mediate between the parties. It is my present purpose to see if this intention is capable of realisation as between the members of the old Council on the one hand and the present administrators of the Branch on the other. In opening up these negotiations with you I desire to state that I am supported by the members of the present Council, who share with me the desire for reconciliation. I am authorised to inform you that we recognise and appreciate the high standard of the principle which determined your course of action, and am permitted to mention that we deeply regret that anything should have occurred to interfere with the hitherto harmonious relationship existing between members of the Branch, and that the present members of the Council are quite willing to resign their positions *en bloc* if this will assist my object. I feel that you must agree with me that unless we unite it will be impossible to remove the disadvantages under which medical men at present labour, and so from want of co-operation our individual isolation will become more pronounced. By combination, our exertions in search of knowledge will become more effective, and while a freer intercourse and friendlier feeling among members will be evolved, the honour and respectability of our profession at the same time upheld. Now, to secure these objects I think we should initiate a movement to give expression to the sentiment of medical federation. A movement such as this cannot be called into existence unless its promoters are imbued with noble feelings and aspirations. The responsibility lies upon us in moulding the future medical destiny of this State, and it behoves us to make an attempt to direct a federated sentiment which undoubtedly exists, but up to the present has been inoperative. We have reason to hope that should the reconciliation be accomplished, there would evolve from this Branch a feeling towards unification of kindred societies in Victoria, and this hope is worthy of cherishing and stimulating. Your return to the Branch would in itself be a demonstration of the fact that you are in sympathy with us in the attempt to unite the whole of the medical interests of Australia under one association. We hope that you will cooperate in fostering a true federal spirit, and that you will assist the members to shape the lines upon which the federated interests of the Australian States may grow into one union. I propose that we recognise the duty which has devolved upon us of kindling an enthusiasm in this movement by giving favourable consideration to our invitation to return to the Branch and resume your position and activity. The time has now arrived, as complete autonomy has been conceded to us towards effecting a unification of the branches of the British Medical Association in Australia. Such an organisation would undoubtedly afford the most powerful means for upholding the best interests and traditions of the profession. After giving consideration to this letter, should you be favourably disposed towards its object, I would beg to suggest that a conference be held between yourselves and ourselves for the purpose of discussing these matters. The meeting can be held at any date to be fixed at the rooms of the Branch in Pleasance's Buildings, or any other meeting-place which may be more convenient.—Very faithfully yours,

Louis Henry.

---

19 Collins-street, 19th July, 1904.

Dear Dr. Henry,—Your letter of the 16th May, 1904, has been carefully considered at two meetings of those who resigned from the Council of the Victorian Branch of the B.M.A. in March 1900, and some of those who supported their action at that time. The meeting was pleased to know that "the high standard of principle which determined their previous action was recognised and appreciated," and was thoroughly in accord with all you said generally as to the desirability of professional union and the promotion of a federal medical spirit. It was felt, however, that no good purpose would be served by meeting the present Council of the Branch in the way you suggest for conjoint action. In the opinion of the late members of the Council of the Victorian Branch of the B.M.A. no action can be taken by them until your Branch has endorsed the expressions of regret contained in your letter for the action of the Branch which led to the retirement of the late Council. In the event of such endorsement the members of the late Council are prepared to resume their former position as a Council.—I am, yours faithfully,

G. A. Syme.

High-street, St. Kilda, 12th August, 1904.

Dear Sir,—In accordance with the request contained in your letter of the 19th ult. that our Branch should endorse the expression of regret embodied in Dr. Henry's letter of May 16th, I have much pleasure in informing you that on the motion of Dr. Lulham, seconded by Dr. Beckett, such was done at a meeting of the Branch on the 11th inst.—Faithfully yours,

W. B. Vance, Hon. Sec.

G. A. Syme, Esq., F.R.C.S., Collins-street.

High Street, St. Kilda, August 12th, 1904.

Dear Sir,—On behalf of this Branch Council of the B.M.A. I have great pleasure in inviting the members of the 1900 Council to again take an active interest in the welfare of the Branch. We believe that many of the members of the old Council are willing to again accept office, and if this be the case will you kindly let me know when it will be convenient for you to attend a Branch meeting in order to accept the resignations of the present Council and elect a fresh one in our places. The ordinary monthly meeting of the Branch is held on the second of the month at 8.30 p.m. at the rooms, 178 Collins-street.—Yours faithfully,

W. B. Vance, M.B.,
Hon. Sec., Vict. Branch B.M.A.

G. A. Syme, Esq., F.R.C.S., Collins-street, Melbourne.

---

19 Collins-street, 17th August, 1904.

Dear Sir,—I am in receipt of your two letters dated August 12th inst. In reply I am to state that the members of the 1900 Council are pleased that the Branch has endorsed the expressions of regret contained in my letter of 19th July. As regards attending a meeting of the Branch the members will be pleased to do so as soon as the Branch has, in accordance with our understanding, re-elected them to their old position as a Council.—Yours faithfully,

G. A. Syme.

W. B. Vance, M.B., Hon. Sec. Victorian Branch B.M.A.

August 29th, 1904.

Dear Sir,—In order to comply with the rules of the Branch, might I ask you to be good enough to get the consent in writing of the members of the 1900 Council to again accept office and let me have it as soon as possible. As one of that body expressed a wish to see the actual resolution carried at the Branch meeting on the 11th inst., I beg to enclose it for his information and that of any of the others who may wish to see it. The resolution was as follows:—"The members of the Victorian Branch B.M.A. learn with pleasure that an endeavour has been made to bring about a reconciliation with the 1900 Council, and cordially endorse the expressions of regret that anything should have occurred to interfere with the hitherto harmonious relationship existing between the members of the Branch embodied in Dr. Henry's letter of May 15th, 1904."—Faithfully yours,

W. B. Vance, Hon. Sec.

G. A. Syme, Esq., F.R.C.S.E.

September 15th, 1904.

Dear Mr. Syme,—Could you kindly let me have the signatures of the members of the old Council expressing their willingness to accept office before Wednesday, the 21st inst. We have a meeting on that date, and can go no further under the by-laws in the matter till we have them.—Faithfully yours,

W. B. Vance, Hon. Sec.

---

19 Collins-street, 8th October, 1904.

Dear Sir,—I have to acknowledge the receipt of your communication of the 29th August, and thank you for enclosing the *ipsissima verba* of the resolution carried by the Branch at its meeting on the 11th August. As the wording of the resolution is not the same as that contained in my letter of 11th July, and as it is highly desirable that there should be no misunderstanding or misinterpretation, I am directed to ask your Branch whether the expressions of regret that anything should have occurred to interfere with the hitherto harmonious relationship existing between the members of the Branch is to be taken as equivalent to expressions of regret for the action of the Branch which led to the retirement of the late Council, the endorsement of which by the Branch was a necessary condition to the Council of 1900 resuming its former position.—Faithfully yours,

G. A. Syme.

High-street, St. Kilda, October 28th, 1904.

Dear Sir,—My Council, after having very carefully considered at two of their meetings your note of October 8th, have formed the opinion that as nothing further can be hoped for from any correspondence they would suggest as a means of furthering a settlement that a strictly private conference of the two Councils be held. Should this meet with your approval we should be glad for it to be arranged for at as early a date as possible.—Faithfully yours,

W. B. Vance.

G. A. Syme, Esq., F.R.C.S.

---

19 Collins-street, 25th November, 1904.

Dear Sir,—Your letter of October 28th has been carefully considered at a meeting of the members of the Council of the Victorian Branch B.M.A., 1900. It was unanimously resolved that no good purpose would be served by a conference. My letter of 19th July contained the conditions on which the members of the 1900 Council could agree to resume their former positions. Until your Branch endorses those conditions nothing further can be done.—Yours faithfully,

G. A. Syme.

W. B. Vance, Esq., Hon. Sec. Victorian Branch B.M.A.

This letter was acknowledged by Dr. Vance, and the correspondence closed.

Ballarat.

The ordinary bi-monthly meeting of the above branch was held at the Ballarat Hospital at 8.30 p.m. on November 24th, 1904. Present: President (Dr. J. T. Mitchell) and ten members. Visitors: Drs. Campbell, Langmore. Apologies: Drs. Gardiner, Nisbet, Richards, Robt. Scott.

Minutes of previous meeting were read and confirmed, and accounts amounting to £1 7s 9d passed for payment.

Dr. J. Steell exhibited a case of rodent ulcer which had been under treatment for three months by liver extract internally in 1 dr. doses per diem, and injections of superfatted soap (McClintock's). Injections were at first given every day and afterwards every second day. After injection, the ulcer was painted over with soap solution and finally dressed with lint, on which was spread a jelly made of soap. There had been a good deal of improvement on the right side of the face, and he hoped to show patient again at some future meeting.

Dr. J. **Steell** also read a paper on "Symmetrical Gangrene Occurring in a General Paralytic." (See page 20.) This had been preceded by peculiar convulsive attacks, accompanied by retention of urine.

Dr. **McGowan** asked if an embolism of abdominal aorta could have been the cause?

Dr. **Langmore** thought that an end-arteritis might have been responsible.

Dr. **Morrison** read a paper on the "Summer Diarrhœa of Children." (See page 8.)

Dr. **Mitchell** remarked that a cool change benefits the majority of cases, but sometimes seems to cause a rapid collapse in those who were apparently doing fairly well. He had found uræmia a not uncommon mode of termination. He approved of boat-shaped bottle; often gave butter milk, and had found that minute doses of castor oil (m. 1), frequently repeated, had beneficial results.

Dr. **Usher** thought that most infants suffering from summer diarrhœa did not get enough fat. He had found potas. sulph. better than magnes. sulph. and ol. ricini in 1 dr. doses, made into an emulsion with liq. potas. and a little ol. terebinth, an excellent mixture for adults.

Dr. **McGowan** stopped milk and began with calomel or castor oil, followed by salines, and if motions were very offensive, a mineral acid. He did not like liquid peptonoids, and preferred raw meat juice or scraped pounded raw meat. He did not give astringents, and liked to bathe patients when possible. He often ordered cream and whey.

Dr. **Sloss**, if case was seen early, gave castor oil in small doses. Irrigated lower bowel, and, if much straining, injected tinct. opii. with starch. He stopped all milk for 12 hours, and gave beef juice, bovinine in cold water, and found Angier's emulsion good in chronic cases.

Dr. **Morrison**, in reply to a question, said that the late Dr. Snowball first pointed out to him the results obtained from using barley-water which had only been boiled for 10 minutes.

The following exhibits were shown:—

Bladder containing two pouches from which stones had been removed by litholapaxy. The crushed *débris* shown weighted 2 oz. 5 dr.

Heart with valvular foramen ovale.

Stricture of small intestine for which entero-enterostomy had been performed; but an attack of perforative appendicitis 11 days after operation had caused a fatal termination.

The meeting then terminated.

New Zealand.

THE annual meeting of the New Zealand Branch of the British Medical Association will be held in Auckland on February 28th, 1905, and following days. The president-elect is Dr. Ernest Roberton, of Auckland. The local secretary is Dr. Tracey Inglis, and notices of papers or any enquiries regarding the meeting should be addressed to him or to the secretary of the New Zealand Branch of the British Medical Association, Mr. H. M. Gore, Box 156, G.P.O., Wellington.

A committee has been appointed by the members of the Association in Auckland to arrange for the entertainment of visitors, and the usual concessions to those travelling by steamer or the Government Railways has been asked.

The time of the meeting has been arranged so that full advantage may be taken of the overland routes between Auckland and other parts of the North Island. The season of the year is that most comfortable for travelling in the Hot Lake region and in the Taupo and Wanganui districts.

The annual meeting of the Wellington Section of the B.M.A. was held on Friday, December 9th. The following officers were elected for the ensuing year:—President, Dr. Martin; vice-president, Dr. Young; secretary, Dr. James R. Purdy; committee, Drs. Fell, Gow, Henry, and Pollen.

REPORTS OF OTHER SOCIETIES.

Border Medical Association.

THE quarterly meeting of the Border Medical Society was held at Wangaratta on December 6th, when the following were present:—Dr. Andrews, president; Drs. Harkin, Harris, Schlink, McCardell, Boyes, Henderson, and the secretary, Dr. W. H. Lang.

Dr. HARRIS read a paper on "The Diagnosis of Uterine Fibro-Myomata and their Treatment," and exhibited a specimen removed by him.

Dr. HARKIN then read a paper on "The Pathology of Fibro-Myomata," and demonstrated Dr. Harris's specimen, showing several sections.

The members dined together as usual, after which Dr. Andrews read notes of two cases of suicide, and then the members visited the Wangaratta Hospital, being shown round by Dr. McCardell.

The next meeting will be held at Albury in March.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Sleeping Sickness—Ankylostomiasis—The Late Professor Finsen—Lunacy in England and Wales—The New Director-General of the Medical Department of the Navy—The Treatment of Cancer—A Year's Inquests in London—Gift to McGill University—Yellow Fever Research.

A REPORT has just been issued by the Congo Expedition of the Liverpool School of Tropical Medicine on the results of their labours to date. In consequence of the discovery in 1901, by Dr. E. J. Dutton, of trypanosomes in the blood of a European, an expedition composed of Drs. Dutton and Todd was sent to Senegambia to prosecute further researches. Prior to the return of this expedition, the discovery of trypanosomes in the cerebospinal fluid of cases of sleeping sickness in Uganda, by members of the Sleeping Sickness Commission of the Royal Society, caused the subject of trypanosomiasis to assume great importance. At the same time it was brought to the notice of the Committee of the Liverpool School that in the Congo Free State the native population had from time to time suffered from very fatal epidemics of this disease. Drs. Dutton and Todd were recalled from Senegambia, and as soon as they had drawn up their reports they left for the Congo in September, 1903, and were soon after joined by Dr. Christy, who had served previously on the Royal Society Sleeping Sickness Commission in Uganda. The results of their investigations are incorporated in the present volume. The symptoms of trypanosomiasis in all its stages both in Europeans and natives, are described; and the etiology and distribution of the disease are discussed in detail. Researches on trypanosomiasis have also recently been carried out in Liverpool by Drs. Thomas and Linton, and a preliminary note of their work is embodied in this report. As far as the observations of these investigations go, they show that the parasite identified with sleeping sickness in Uganda and the Congo does not differ from that described by Dutton in the Gambia. The question of a curative agent has for a considerable time engaged the attention of the members of the research, and experiments are now in progress to find a remedial agent which will have the same effect in trypanosomiasis that quinine has in malaria. A variety of drugs have been used with more or less success. Up to date arsenic and trypan red, an aniline dye introduced by Ehrlich and Shiga, appear to be the most useful; the parasite disappears for a time from the blood, and life is prolonged, but with neither of the drugs is an absolute cure attained.

It has for a long time been suspected that the mouth is not the only route by which the larvæ of ankylostoma duodenale may reach the intestine; and recent experiments conducted by Schandinn seem to give confirmation to the theory first propounded by Loos that they may also gain entry through the skin. Schandinn's experiments have been performed on monkeys, and he has proved that after rubbing in a watery suspension of larvæ into a patch of skin shaved of its hair in animals, proved, by repeated previous examinations, to be free from parasites, larvæ are to be found in the texture of the skin, and living worms in various stages of development in the upper third of the small intestine. After penetrating the skin, the larvæ enter the subcutaneous veins, and thence travel through the right heart, lungs, trachea, œsophagus, and stomach to reach the duodenum. Schandinn actually found the larvæ both in the heart's blood and in the lungs. It has been observed by Sandwith that in Egypt, ankylostomiasis is most prevalent among peasants who work in damp earth; and recently Bentley, of Assam, has recorded a number of observations illustrative of the close association between a disease frequently met with among coolies working in the plantations in Assam, known locally as "grounditch," and the presence of ankylostomal larvæ in exposed fæcal material so carelessly disposed of that it is constantly trodden on by these coolies. If "grounditch" is really a dermatitis produced by ankylostomal larvæ, and if the theory of Loos be verified, that these larvæ can enter the human system through the skin, the danger of ankylostomiasis among native workmen and others who labour and live under conditions of soil pollution is no less than that of those whose risk arises from an infected water supply. When full proof is afforded of the possibility of this mode of invasion, it will enable much to be done in the near future for the effective prevention of ankylostomiasis.

By the premature death of Professor Finsen the world has lost one of its most heroic scientists. His life was a combination of brave fortitude in the endurance of his own ailments and unwavering devotion to the prosecution of his work, and the alleviation of sickness in others. Niels Ryberg Finsen was born at Thorshaven, in the Faroe Islands, in 1860. He first studied medicine at the medical school of Rey-Rjavik, and later on proceeded to Copenhagen, where he took his doctor's degree in 1890. He was already at this time, though only thirty years of age, the subject of incurable disease. He adopted the most stringent and self-sacrificing methods to prolong his life, during the last three years of which he was completely invalided, and mostly confined to bed. He watched the progress of his own illness with resignation and even with grim humour. He wrote about it in the medical journals, and is said to have expressed regret that he would be unable to see his own post-mortem. Though distinguished as an all-round brilliant investigator, Finsen's name will go down to posterity as the discoverer of light as a cure for disease. It was by a curious chance that he took up the study which was destined to make him famous. A pamphlet dated 1832, by Dr. Picton, of New Orleans, accidently fell into his hands; it described how, during the American War of Independance, several prisoners suffering from smallpox, who were by accident or design shut up in dark rooms, escaped secondary fever and pitting of the skin. Finsen pursued the investigation thus suggested, and in 1893 proved that by excluding the rays at the violet end of the spectrum, smallpox and kindred disorders might be greatly mitigated. Since then the red-light treatment of these disorders has been extensively adopted. In 1899 it had been pointed out by Widmark, of Stockholm, that the chemical rays—the blue-violet and the ultra-violet—were capable of inflaming the skin, and in the pursuit of his investigations Finsen discovered that their caustic action was destructive to bacteria. He applied his discovery to practice in 1895, when he treated his first case of lupus. The result was eminently successful, and the fame of his new method of cure spread rapidly. Eventually he perfected the Finsen lamp, by which so many cases of what was formerly regarded as an almost hopeless malady are now cured or ameliorated. In acknowledgment of his services to science he was last year awarded one of the Nobel prizes. The merits of his discovery were recognised and appreciated as much outside of as within scientific circles. Royal personages were among the first to give him generous recognition. The King of Denmark did much to assist him; the German Emperor visited him and declared that he deserved to have a monument erected in his honour during his lifetime; and our own Queen took such a practical interest in his work that she provided, at her personal cost, a Finsen lamp for the London Hospital. Though he died at an age when most men are but on the threshold of their usefulness, it must have been no small comfort to him to know that already he had earned an imperishable reputation, and had been able, despite his own disabilities, to bring hope and succour to many who were disfigured and disheartened by the cruel ravages of a deadly and intractable disease.

The Lunacy Commissioners, in their fifty-eighth annual report to the Lord Chancellor, which has just been issued, show that lunacy tends to increase in England and Wales at a slightly higher rate than the growth of the population. On January 1st, 1904, 117,199 persons were certified as insane in England and Wales, or 3235 in excess of the number on January 1st, 1903. In the ten years ending December 31st, 1903, the average annual increase was 2513, and the increase in 1903 exceeded that average by 821. On January 1st, 1904, the total number of notified insane to the estimated population of England and Wales was in the proportion of 1 to 288; or, stated in other terms, the ratio of the insane per 10,000 of the population was 34·71; while last year, on the same day, the ratio was 34·14. The Commissioners say:—"When dealing with the gross figures alone there has been a rise in the total numbers from 113,964 to 117,199, *i.e.*, an increase of 2·8 per cent., but the increase of the one ratio over the other is 1·7 per cent., a rate which would represent more accurately the actual growth of insanity, since it takes into account the concomitant growth in population of which the insane form a fraction. The total increase in this ratio for the past ten years has been 13·1 per cent., whereas the increase in the numbers of the insane during the same period has been 27·3 per cent., for in 1894 the proportion of insane to total population was 1 to 327; in 1904, it is as 1 to 288; and whilst the insane have increased from about 92,000 to 117,000, the general population has also grown from about 30 millions to 33¾ millions." Thus there is shown an increase in the ratio of the insane over the ratio of population of 1·7 per cent. in a year, and of 13·1 per cent. in ten years; but looking at the details of this growth, there is some room for comfort in the facts that the increase is practically confined to the pauper class, and that the ratio of increase has been much smaller between the ages of twenty and fifty-four than amongst those above the latter age. "It may be inferred," say the Commissioners, "that the growth of insanity among those of the community upon whom its burden would most be felt is really lower than the rate of growth in population at the same period of life; and that it is only when that term is past that a rate of increase in excess of that of the population is to be found." As regards causation alcoholic intemperance takes a chief place, and preponderatingly in the male sex. The mental balance in women is found to be more disturbed by "domestic troubles" than it is in men; but, on the other hand, "adverse circumstances"—such as pecuniary anxieties, worry, and over-work—are more potent factors in men than in women. Religious excitement, old age, parturition, and the puerperal state are referred to as among other important causes responsible for insanity. The Commissioners view with grave concern the "modern tendency to undue increase in the size of asylums for the insane poor," and think the time has arrived when they should renew their protest against it. They conclude their report by referring to the increased duties which have been imposed upon them, and declare that the "efficient and satisfactory administration of the Lunacy Acts, under which great benefits accrue both to the patients and to the country at large, cannot longer be continued on the existing arrangements, which, generously sufficient for the duties of the Commission in 1845, are quite incompatible with those of 1904.

Inspector-General of Hospitals and Fleets, Herbert Mackay Ellis, has been appointed Director-General of the Medical Department of the Navy, in succession to Sir Henry F. Norbury, K.C.B., who retires on expiration of his term of office. The new Director-General served with the Royal Marine Artillery throughout the campaign in Egypt in 1882. He was mentioned in despatches, promoted to the rank of staff surgeon, and awarded the medal with the Tel-el-Kebir clasp, and the Khedive's bronze star. He was Fleet-Surgeon of the "Victoria" when she was rammed by the "Camperdown" in 1893. He was recently appointed Inspector-General in charge of Haslar Hospital.

At the Dermatological Congress held in Berlin during September, the treatment of cancer was discussed with much animation. Referring to the non-surgical treatment of epithelioma, Professor von Petersen submitted the following conclusions:—(1) That epithelioma is curable without operation only in its initial stage; (2) that the best results are obtained by "Finsenlicht," inasmuch as this treatment has no deleterious effects. Unfortunately, it is very expensive; (3) that Röntgen rays are often productive of good results, but they must be employed with great caution; (4) radium rays give positive results, but are accompanied by dangers still greater than those arising from the use of Röntgen rays; (5) small surface epithelioma can be healed by continued bandaging with a solution of from five to fifteen per cent. of soda. Professor von Bergmann maintained that every kind of epithelioma can be permanently healed by means of surgery, whereas only a portion of the cases are healed by treatment by light. He admitted that when severe complications already existed the surgeon could not cure the patient. But in those cases the Röntgen rays also failed. Hitherto, he said, no cancer which proved impossible to operate for had been healed by the Röntgen rays. It was true that in perfectly hopeless cases the pain of the patient could be alleviated by Röntgen and radium rays, but this simply meant the prolongation of the life of the patient and not his cure. Dr. Leredde, of Paris, explained that a capable doctor could always avoid causing harmful effects when using radium in cases of cancer. He had, he said, registered good results from the use of radium. The President pointed out that a careful distinction must be drawn between the different kinds of epithelioma. Deep-rooted cancer, he thought, ought to be operated upon immediately if an operation were possible, but superficial epithelioma should be treated by Röntgen rays. It was admitted that the cause of cancer is still unknown.

According to the report of the chief officer of the Public Control Department of the London County Council, 7245 inquests were held in the county in 1903, as compared with 7729 in 1902. The total disbursements of all the inquiries was £17,966 16s 5d, yielding an average of £2 9s 7¼d per inquest. The salaries of the principal coroners were: Dr. Thomas, £2263; Mr. Baxter, £1952; Dr. Westcott, £1535; and Mr. Drew, £1126. In 43 cases a verdict of wilful murder was returned; in 10, a verdict of manslaughter; in 534, suicide while insane; and one, *felo de se*. 46 deaths were declared due to disease aggravated by neglect of others, 40 to want, exposure, etc., 334 to excessive drinking, 2451 to accident or misadventure, and 3313 to natural causes. Open verdicts were recorded in 63 cases where death was the result of injury, and in 142 cases of drowning. In 4885 cases of children suffocated in bed with parents or others, a verdict of accidental death was found, and in 5 an open verdict. There were 2821 juries summoned, and the average amount in fees per jury was £1 2s 7d. The reduction in these fees compared with 1902 was £475. Including the salaries of coroners (£10,326), the total cost of the 7245 inquests held last year was £28,293.

The *British Medical Journal* is informed that Dr. Roddick, the Dean of the Medical Faculty of McGill University, Montreal, announced at a meeting on September 21st that Lord Strathcona and Mount Royal, the Chancellor of the University, had presented the sum of 50,000 dollars to the Medical Faculty. This is in addition to a previous gift of 100,000 dollars made rather more than two years ago. The whole of that sum was expended in building, alterations and extensions. Two new lecture rooms and three laboratories were erected, and other additions made which greatly increased the working facilities of the faculty. These extensions cost upwards of 30,000 dollars more than was expected, and the present donation of the Chancellor is intended to cover the deficit, and to assist the general work of the school. The University will now be suitably equipped to enable it to introduce the five years' curriculum for students of medicine.

The Liverpool School of Tropical Medicine proposes to despatch a second yellow fever expedition to the Amazon for the purpose of pursuing further investigations. Previous research has succeeded in discovering many facts in connection with yellow fever, but the true cause of the disease is still unknown. A few years ago the late Dr. Walter Myers and Dr. Herbert Durham were selected by the Liverpool Tropical School to undertake an expedition to Para to investigate and report upon the fatal disease which was then, and still is, responsible for so many deaths. Both these members of this expedition were attacked by the malady, and unfortunately Dr. Myers succumbed. The nature of such research work entails so many risks that it is gratifying to find capable and expert men ready to face them if only by their efforts, or even sacrifice, they are able to add something to the sum total of scientific knowledge. It is probable that the expedition which is now being prepared will leave England towards the end of the year.

SOME DIAGNOSTIC SIGNS OF EARLY PHTHISIS.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—Dr. Lendon suggests that the peculiar smell of phthisis mentioned by me emanates from the skin, not from the breath, of the patient. I cannot agree with him. I believe I have made sure that it owes its origin to the breath. Dr. Lendon compares it to the smell of hops. That may be so, but I cannot tell, since I do not sufficiently remember the smell of hops, although coming from a hop-growing country. Dr. Sinclair objects to my statement that a patient with a latent phthisis and a cough from some other source is not a fit inmate for a sanatorium for consumptives. He construes this into my raising a scare against sanatoria as being sources of infection for the districts in which they were established. I quite agree with Dr. Sinclair that a well-conducted sanatorium—and we may presume every such sanatorium well conducted—is as little danger to the surrounding country as a well-conducted bacteriological institute. But surely neither Dr. Sinclair himself nor any other medical man would send a patient recovering from influenza or whooping-cough, or any other disease predisposing to phthisis, to a sanatorium for consumptives. Well, there is no disease that predisposes to phthisis so much as a previous attack of phthisis. Phthisis is a recurring disease, and the patient would not have been affected in the first instance if his resisting power had not been deficient in that direction. Hence my statement that a patient with a latent phthisis and a cough due to some other trouble has no business in a sanatorium for consumptives.—I am, etc.,

EUGEN HIRSCHFELD.

Wickham Terrace, Brisbane,
January 7th, 1905.

The vital statistics of London show that there has been a large increase in the number of deaths from influenza, pneumonia, and bronchitis during the year 1904, as compared with the year 1903.

REVIEW OF CURRENT MEDICAL LITERATURE.

OBSTETRICS AND GYNÆCOLOGY.

Examination of the Bladder in Twenty Cases of Ventral Suspension.

Chandler, Swithin (*New York Med. Jour. and Phil. Med. Jour.*, May 28th, 1904, vol. lxxiv., No. 22). For many years past it having been taught that after replacement of the uterus by ventral suspension, frequent micturition resulted and continued for six months or even longer because of new position of the bladder, Dr. Chandler was led to examine the bladder with a Nitz cystoscope in 20 cases of ventral suspension. These cases were not selected, but the first 20 requiring this operation were examined. As a result of the operation there was no trouble with frequency of micturition, except where some evidence had been found by the cystoscope which would cause this,such as stone,cystitis, villous growth, or polypus, and in a large number of the cases in which there had been frequent micturition the operation of ventro-suspension cured it, perhaps by removing pressure from the neck of the bladder.

Complications and Degenerations of Uterine Fibromyomata.

McDonald, Ellice (*Albany Medical Annals*, July, 1904, vol. xxv., No. 7). Owing to the systematic routine pathological examination of fibroid tumours the classical teaching with regard to the prognosis and treatment of these growths has been considerably upset, since the frequency with which degeneration and complications are present is much greater than was formerly believed. The importance of collating the results of these pathological examinations is at once apparent, since the question of operative interference and the extent of the operation must depend on the information derived from the combined clinical and pathological reports. Whilst in the removal of a benign tumour it is without doubt desirable that the patient should suffer as little mutilation as possible, still the operation must be one which offers the least danger and at the same time takes into consideration the various attendant complications. For instance, it is customary at present for most operators when performing hysterectomy to leave at any rate one ovary, in order to avoid the severe climacteric symptoms sometimes produced by complete oöphorectomy, and yet until we know from microscopic examination of ovaries the frequency of disease in these organs when complicated with myoma, this proceeding may be of doubtful advantage. Bearing these facts in mind, Dr. McDonald has collected the varied statistics published dealing with the subject, 788 cases in all, and to these he has added 280 cases representing all the myomata that were removed at the Albany General Hospital during the last seven years, and 26 cases in which they were found at autopsy—in all, 1068. The author having discussed the various complications found in his own series of cases, comes to the following conclusions :— 1. Fibroids which are producing symptoms, and all fibroids, except those designated as small (especially when subserous or intramural), should be removed, because the risk to the patient from operation is far less than that from the tumours themselves. 2. In view of the sarcomatous changes, carcinomatous associations and complications of uterine fibroid myomata, early removal is indicated when they are of sufficient size to produce symptoms. Small uncomplicated tumours, not producing symptoms, do not require early treatment. 3. Thorough pathological examination should be made of all fibroids for evidence of malignancy. Particular study should be devoted to those tumours which are necrotic, cystic, or both, as among these are found the largest proportion of malignant changes.

The Influence of Hysteropexy on Pregnancy.

Jacobs, C. (*Bulletin de la Soc. Belge de Gyné. et d'Obstet.*, tome xv., No. 2). In a discussion upon this subject at the Congress at Rome in 1902, Pinard used the following words :—" I take advantage of this interesting communication of our colleague to once again raise my voice against all methods and all procedures which aim at fixing the uterus in women during the child-bearing period of life. I am not going to discuss vaginal or abdominal hysteropexy or any other means of fixation ; I content myself with saying that the more the object is attained and the better the result, the more is the woman exposed to danger in future pregnancies and confinements." In view of these grave words, Jacobs has collected and analysed his own cases. Between 1890 and 1897 he performed abdominal hysteropexy 70 times ; he then abandoned this operation for vaginal hysteropexy, which he performed 21 times, finally giving this up also to practice suture of the uterus to the pelvic peritoneum by the vaginal route.

I.—Abdominal Hysteropexy.

The method employed has been to fix the anterior wall of the uterus to the anterior wall of the abdomen by two or three silk sutures passed through the muscles up to the superficial aponeurosis. In these 70 cases, 29 pregnancies are reported ; 26 of the women had borne children previously, three had not. In 18 cases the labours were normal ; one delivery was accomplished by forceps, one by version ; there was one case of placenta prævia, and eight miscarriages. The striking feature is the number of miscarriages. These must, to a great extent, be caused by the irregular development of the uterus where the fundus has been fixed, particularly when fixed low down. During the first six months of pregnancy it is the fundus which develops most, in the last three months the lower segment, and in cases of ventral fixation it is the posterior wall only which is capable of normal development ; this is proved by the facts that when Cæsarean section has been performed, in these cases the incision is on the posterior wall, and when rupture occurs it is this wall which gives way.

II.—Vaginal Hysteropexy.

The operative procedure has been to fix the upper part of the anterior wall or even the fundus of the uterus to the vaginal wall by means of two or three silk sutures. In the 21 cases operated upon, pregnancy followed eight times ; there were two miscarriages, one case of placenta prævia, and five normal labours. The result of this operation is to bring about an exaggerated degree of anteflexion. This gave rise to difficulty in one case ; the cervix was prevented from rising, and, having caught behind the bulging anterior wall of the vagina, could be reached only with the greatest difficulty. In this series there is again noticed the great liability to miscarriage.

III.—Suture of Uterus to the Pelvic Peritoneum.

" The operative procedure consists in opening the anterior pouch of the peritoneum after a transverse section through the anterior vaginal fornix, isolating a strip of the peritoneum which covers the bladder, fixing the anterior wall of the uterus towards its upper third to this strip by means of two buried sutures, closing the breach in the peritoneum, and finally suturing the vaginal wall." The great advantage of this procedure is that by suturing serous membrane to serous membrane, adhesions are formed which allow of great mobility and do not prevent the physiological development of the uterus during pregnancy. This operation Jacobs has performed 69 times; pregnancy has followed 21 times, and in each instance has advanced to full term; there was no case of dystochia. "If we compare these results with those of other operations for correcting uterine deviations, we can only deduce that vaginal hysteropexy, as we practice it to-day, is an operation devoid of any injurious consequences during pregnancy; that vaginal fixation and abdominal hysteropexy, on the contrary, are operations which should never be performed upon a woman during the child-bearing period of life."

The Treatment of Eclampsia by Thyroid Extract.

Baldowsky, W. G. (*Vratch*, vol. xi, 1904) has confirmed the value of thyroid extract in two cases. In the first case, fits came on in a multipara at the seventh month of pregnancy, and 18 grains of thyroid extract were given. The fits ceased. The thyroid was continued for two days longer—10 grains daily—and the patient seemed quite recovered. A fortnight later, however, she again developed severe eclamptic fits, 16 seizures altogether, which were treated by thyroid extract, with narcotic remedies in addition, and recovery followed. The other case was that of a primipara at term, who was suddenly seized with eclamptic convulsions at the commencement of labour. Thyroid alone was given, and the attacks ceased before rupture of the membranes. The labour took place without any unusual symptom, and the puerperium was normal.

Case of Puerperal Eclampsia treated by Thyroid Extract dissolved in Saline and given Subcutaneously.

Macnab, J. C. G., and Macnab, D. S. E. (*Jour. of Obst. and Gyn.*, November, 1904), report the following case:—Primipara, *æt.* 27, eight months pregnant, had an eclamptic seizure. The previous week she complained of nothing more than slight swelling of the legs. When seen by them she was in her fifth fit. A hypodermic of morphia (gr. ½) was administered, and hot bottles and blankets were kept round her as far as possible. A little urine removed by catheter was found albuminous, ⅙ by volume. The morphia had a very slight effect in allaying the frequency of the fits, and at 10 a.m. another ½ gr. was administered. At 3 p.m. there was little or no improvement; fits as frequent, perspiring profusely, so ¼ gr. more morphia was given. At 6 p.m. croton oil (m. 3) was placed on the tongue, but as that had not acted by midnight it was supplemented with calomel gr. 5, and pulv. scammon. co. gr. 30. The fits were still continuing, and at 3 a.m. the following day chloral gr. 40 and potassium bromide 2 dr. were given by the rectum, and half that dose was repeated at 8 a.m. without in any way modifying the frequency of the fits, although to a very slight extent lessening their severity. At 10 a.m. two pints of saline solution having been prepared, 15 tabloids of extract of thyroid (5 grains each, B.W. and Co.) were dissolved in the saline and injected below the breast. Within an hour and a-half there was a decided improvement, both in the frequency and severity of the fits, and in another hour the bowels moved and labour began. Under chloroform the labour was terminated with forceps with as little delay as possible, and on the removal of the placenta bleeding was freely encouraged. The child was dead. The fits numbered 37, so far as could be counted. From this time onward the fits ceased. She remained semi-conscious for 48 hours, when she developed a right basal pneumonia, with a crisis seven days later, after which she made a rapid recovery. The urine was examined three weeks afterwards, and found to contain only a trace of albumen.

Hydatid Mole and Eclampsia.

Raineri (*Gazzetta Degli Ospedali e Delle Cliniche*, 1904, No. 58) in this clinical note refers to the relations which exist between the ovum and the maternal organism, and to certain symptoms that may on this account appear during pregnancy. The patient was a very anæmic woman in her eighth pregnancy. At the end of the third month, while at her home, labour pains came on, and a hydatid mole was expelled. Everything appeared to go on satisfactorily till the ninth day of the puerperium, when several severe eclamptic seizures occurred. The patient was removed to a maternity hospital in profound coma, and died in a few hours. At the necropsy, a little mass of dark-red tissue was found adherent to the fundus of the uterus, and in it were present a number of characteristic cysts of various sizes. Examination of the blood and urine afforded some evidences of anæmia and of hepato-renal insufficiency. The changes found in these organs and in the blood in this case would, in the author's opinion, tend to support the fœtal origin of the severe maternal intoxication.

Styptol in Uterine Hæmorrhage.

Witthauer, Kurt (*Zeutral fur Gynakol*, 1904, No. 33). The writer's attention was drawn to this preparation of cotarnin in an article by Fackenheim in the May number of the *Therapeutischen Monatschrift*. Fackenheim had used the drug with good results in bleeding due to abortion, new growths (myomata, carcinomata, polypi), and in climacteric. It is an anodyne and sedative; it does not excite labour pains; where uterine contraction is absent it may be combined with ergot. It is dispensed as tablets (=0·05 gr.), and the dose is 1 to 3. Witthauer has obtained good results in menorrhagia of young growing girls, where there are no anatomical changes to be found in the genitalia. He records the case of a girl aged 16 years, who was very anæmic from irregular excessive hæmorrhages lasting eight to ten days, which had been going on for nine months. The tablets were given during two attacks of bleeding, with the result that it was completely checked. In the bleeding of endometritis, which resisted other drugs, and returned or persisted, in spite of curettage, styptol has been used repeatedly by the author with good results. The most encouraging results of all were obtained in the hæmorrhage at the climacteric, which it checked after stypticin and hydrastis had failed. Witthauer had not used this drug in cases of incomplete abortion nor for new growths, preferring operation for such conditions. The writer's conclusions are that (1) styptol is more effective than stypticin; (2) it is useful where there is no indication to bring about uterine contraction; (3) it is harmless, and, moreover, it is quite cheap.

OPHTHALMOLOGY.

Sarcoma of the Orbit. Report of a Case cured by the X-Rays.

Webster Fox (*Knapp's Archives* for January, 1904) records this case. The growth was a large one, with proptosis, enlargement of the left naso-orbital region, and it had produced tetanoid convulsions, attributed to irritation of the cerebral cortex. Exploratory operation revealed involvement of the ethmoidal cells, and microscopic examination of a portion of the growth showed it to be a spindle-celled sarcoma. Consultation with his surgical colleagues resulted in the case being decided as inoperable. As a last resort, Fox determined to try X-ray treatment, and after seven months of this all signs of the growth had entirely disappeared. The paper is illustrated with three photographs. The first shows the hideous appearance before treatment; the second, after three months' treatment; and the third, the absolutely normal appearance as a final result. Fox remarks that, "while this single case does not prove that X-ray treatment is capable of curing all such cases, it does show a possibility of bringing about a favourable result, the importance of which must not be ignored."

Kienbock also (*Wochenschrift für Therapie und Hyg. des Auges*, February 25th, 1904) demonstrated a case of sarcoma cured by the X-rays, before the Medical Society in Vienna. The growth, which was an endothelial sarcoma, had appeared first in the nose seven years before, and in spite of repeated operations had invaded both orbits and produced exophthalmos on both sides, with atrophy of the nerves. Pain ceased after the first treatment, and in three months the tumour entirely disappeared, the eyes resumed their normal positions, and vision partly returned. Docent Dr. Grossman also showed a similar case where the growth had almost entirely disappeared under the X-rays. Dr. Holzknecht called attention to the difference between sarcoma and carcinoma in their relation to the X-rays. It is known that the action of the rays becomes less effective below the surface, apparently because the greater portion is absorbed by the superficial layers. Cells of pathological tissue are much more sensitive to the rays than those of normal tissue. Carcinoma cells are only destroyed on the surface, while the deep infiltrating carcinomata of the skin are very little, and the carcinomata of internal organs are not at all affected by X-ray treatment. Sarcomata, however, even of deep-seated organs, *e.g.*, the ovaries, react in a surprising manner to the rays. Sarcoma tissue is not alone in this respect; it shares the peculiarity of enormous sensitiveness with that of mycosis fungoides, and of tumours of the lymphatic apparatus in pseudoleukæmia. The action of the rays, therefore, depends not only on their penetrating power and the absorbing power of the tissue treated, but also on its sensitiveness.

Protargol Argyrosis of Conjunctiva.

At the November Session of the Section of Ophthalmology of the College of Physicians of Philadelphia, de Schweinitz showed the incorrectness of the statement that has been made to the effect that weak solutions of protargol do not cause silver staining of the conjunctiva, and that they may therefore be safely entrusted to the patient for his own use. According to de Schweinitz, protargol is capable of staining in some cases more rapidly than nitrate of silver, and he mentioned five cases of his own in which a five per cent. solution had produced staining. Risley agreed with de Schweinitz that "these salts" of silver should never be given to a patient for home use, and mentioned a case where a single injection of a 10 per cent. solution into the lachrymal sac had produced extensive and deep-seated staining of the conjunctiva, which had, however, gradually disappeared. [The reviewer has observed staining of the conjunctiva after six weeks' treatment with a 15 per cent. solution of *argyrol*, applied thrice weekly, and washed out immediately with water.]

Artificial Ripening of Cataract by Means of Hot Air.

Wolffberg (*Woch. f. Therapie. und Hygiene des Auges*, September, 1904) was led to try this method on account of the well-known frequency of cataract amongst glass-blowers, due to the exposure of the eyes to great heat. Only six eyes were treated, three with high myopia and three with senile cataract, but the results were so good that the author does not hesitate to recommend the method. An appliance called a "Kalorisator" is employed, which projects a jet of air heated to a temperature of 70°, 100°, or 170° C., against the closed lids for about five minutes. The patient's mouth is shielded by a piece of wet wadding wrapped in muslin. Two or three applications a day were made, and ripening was produced on the average in one week.

A Bacteriological Study of Trachoma, with Remarks on the Occurrence of the Influenza Group of Bacteria in Conjunctivitis.

Arnold Knapp, M.D. (*Knapp's Archives*, September, 1904), refers to the publications of L. Müller, of Vienna, who, in an examination of trachoma in Egypt and Graz, found an influenza-like bacillus in 59 out of 155 cases, more frequently in recent cases. He never found the bacillus in non-trachomatous cases, and is inclined to regard it as the inciting factor in trachoma. Culturally and morphologically this bacillus cannot be distinguished from the influenza bacillus, but Müller does not regard it as identical with the influenza bacillus, as no other symptoms of influenza were present. Müller's bacillus has the following characteristics: — Morphology: Very small, short bacilli, generally twice as long as broad; outline not sharp; rounded ends: stain with difficulty, best with carbol fuchsin. Gram negative. Culture: Exclusive growth in hæmoglobin media, in which, after 24 to 48 hours, small, clear, dewdrop cultures appear, seen only with a magnifying glass. Animal experimentation was negative, while experimentation with the true influenza bacillus is variable.

Knapp conducted a series of investigations with a view of testing Müller's results. Amongst the cases of trachoma examined some were complicated with acute epidemic conjunctivitis. In these the Koch-Weeks' bacillus was present, but the Koch-Weeks and Müller's bacillus were never found together. The Koch-Weeks' bacillus is regarded by some as identical with the influenza bacillus, while others, including the writer, hold an opposite view. Knapp's conclusions are as follows:—(1) An influenza-like bacillus, identical with the Müller "trachoma bacillus," was found present in eight out of 120 fresh cases of trachoma examined. It was present in the greatest numbers in a case of clinically "acute trachoma." (2) This organism could not be differentiated from the true or pseudo-influenza bacillus, morphologically, culturally, or by animal experimentation. (3) Its presence in these cases of trachoma seems to have been probably accidental. (4) There is an influenzal conjunctivitis without other manifestations of influenza. (5) The Koch-Weeks bacillus is not identical with the influenza organism.

NEUROLOGY AND PSYCHIATRY.

Optic Neuritis.

In the August number of the *Review of Neurology and Psychiatry*, Dr. Robert Fleming, of Edinburgh, discusses the pathology of optic neuritis, occurring in cases of cerebral tumour. He mentions the following as the list of theories as to causation which have been held by various authorities: (1) Venous obstruction from increased intra-cranial pressure; (2) similar increase in the lymph pressure between the nerve and its sheath; (3) an irritant in the cerebro-spinal fluid; (4) an irritant in the brain-tissue itself and conducted directly down to the optic nerve; (5) reflex stimulation of the vaso-motor nerves of the disc; (6) extension from a meningitis caused by the tumour; (7) a descending neuritis. The author examines these various theories and says: "I certainly incline to the view that the cerebro-spinal fluid is the agent which conveys the toxin, and this because the neuroglial cell changes are best marked near the pial sheath, and certainly bear some relationship to the position of the lymph channels." As regards the pathological change in the nerve, Fleming considers, to put it briefly, that the toxin causes an increase in the size and number of the neuroglial cells; these press on the nerve fibres and tend to destroy them. In all advanced cases he found a greatly diminished number of nerve fibres. It is of interest to note that Fleming's investigations "completely corroborate the view that the neuroglia, so-called, really consists of two quite distinct elements, neuroglial cells proper, believed to be of epiblastic, and mesoglial cells of mesoblastic origin, and they might be taken as a pathological confirmation of what Ford Robertson has shown by his platinum method, that mesoglial cells are absolutely distinct from neuroglial."

Functional Astereognosis.

In the same number of the *Review of Neurology*, Dr. George E. Rennie contends that astereognosis may at times be only of functional import. He bases his contention on a case of rapid recovery from the following condition: Relative anæsthesia and analgesia of left hand. Muscular sense and sense of posture defective. Spacing and localising senses also defective. "He was quite unable to recognise the nature of any object placed in his left hand if his eyes were kept closed." Reflexes all normal. Rennie shows that the condition was, in all probability, of central origin, and the rapid recovery, under ordinary treatment, speaks for its functional nature in this case.

Regeneration of Nerves.

It is of interest to note that in a paper published in the *Proc. Physiol. Soc.*, March 19th, 1904, Mott, Halliburton, and Edmunds bring forward further facts to disprove the theory of regeneration of axones from the periphery. They are convinced that a nerve is only regenerated from its central cell-body.

Heredity in Nervous and Mental Disease.

In the September and October numbers of the *Neurologisches Centralblatt*, Dr. Hähnle considers the present views on this subject. He comes to the following conclusions: (1) The principal matter in almost half the cases of nervous and mental disease is to look for inherited predisposition in an ancestor. (2) The experience of nervous and mental pathology, as well as the present position of the whole question of heredity, make it appear possible that a state of disease (Krankheitszustandes) acquired by a parent may be transmitted to the offspring. (3) We do not yet know sufficient about heredity as an etiological factor in disease to enable us to express ourselves in figures; neither do we know enough of the way it acts to make it as yet possible to frame laws in regard to it. (4) Better information on the subject will be acquired by the careful investigation of many generations of one family than from the examination of large numbers of asylum statistics. (5) We have as yet no clinical signs to enable us to distinguish between acquired and inherited predisposition in each individual case. (6) Against the earlier view that nervous disease usually extinguished itself by inducing a progressive degeneration of the family in which it occurred, many German authors are now of the opinion that, given favourable conditions, the inherited tendency to nervous or mental disease will gradually disappear. The important conclusions appear to be numbers 2 and 5.

Epilepsy.

A great deal of interest has recently been evinced in regard to the relation of epilepsy to toxæmia, and many papers have been written on the subject. In an article in *Centralbl. f. Nervenheilk. u. Psych.*, xxv., 1902, Ceni gave some experimental reasons for believing that two antagonistic substances were present in the blood of an epileptic—the one working in a toxic and the other in an antitoxic manner; the therapeutic powers of the latter were only set free when the blood was drawn from the body This antitoxic substance, he found, showed greater activity against the toxin in the blood of the individual from which it was drawn than against the toxin in the blood of other epileptics. He therefore treated a number of patients with injections of their own serum. Both Ceni and Wende (Leipzig, 1902), who adopted the former's method, obtained encouraging results. Gerhartz (*Neurologisches Centralblatt*, No. 18, 1904) carefully treated two epileptics in the same manner, using also the blood from other epileptics. Each patient received ten injections, which varied in quantity from 1·75 cc.m. to 18 cc.m., and were spread over about five months. During the course of the experiment no bromide was exhibited. This observer has come to the conclusion that the serum controls the fits to about the same degree as does bromide He finds no lasting effect on the number or severity of the attacks. He says it might be used where bromides were objected to. He found blood taken from another patient immediately after the occurrence of a severe fit far more active even than the patient's own serum. Pearce and Boston (*Am. Journal of Insan.*, April, 1904) believe there is a toxin resident in the blood cells or serum. They carefully examined the blood in a number of cases and found anæmia, poikilocytosis, and some granular basophilia with leucocytosis. Rabbits injected with the blood of epileptics showed a rise in the percentage of hæmoglobin, leucocytosis and eosinophilia. Guidi considers the toxic substance in epilepsy to be carbamic acid, excreted as an ammonium compound, and in cases which he observed there was a marked rise in the amount of ammonium salts in the urine at the time of the fits.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the City Health Officer, reports:—The deaths of residents during December numbered 498 (exclusive of deaths among persons residing on the harbour and patients of the hospitals for the insane). This figure is equivalent to an annual mortality rate of 11·57 per 1000 of the estimated mean population, which is, with the exception of 1900, the lowest mortality rate experienced during December for the past ten years. Corrected by the inclusion of the metropolitan proportion of deaths in all hospitals for the insane and benevolent asylums throughout the State, the death rate becomes 12·46 per 1000. Diarrhœal diseases caused 116 deaths, of which 18 were certified as caused by diarrhœa and 98 by enteritis. These figures are higher than those experienced in November in accordance with the usual experience, but they are well below the quinquennial average of deaths from diarrhœal diseases during previous Decembers (132). The principal infectious diseases, exclusive of diarrhœa, caused 15 deaths, of which 3 were ascribed to measles, 2 to scarlet fever, 2 to whooping-cough, 1 to diphtheria, and 7 to typhoid fever. The mortality from phthisis was unusually low. Only 23 deaths were registered from this cause, as against a quinquennial average for December of 36. Respiratory diseases were also much less fatal than is usual during the month under review. Bronchitis caused 5 deaths, and pneumonia 11, in contrast with five-year averages of 10 and 25 respectively for December. Cancer, with 33 deaths, yielded an average mortality; while Bright's disease was rather more fatal (27 deaths) than usual. Infantile mortality was again very favourable. There were 162 deaths among children under one year of age, corresponding to an infantile mortality rate of 145 per 1000 births, which is the lowest rate experienced during December for the last ten years. The causes which principally contributed to infantile mortality were: Diarrhœa, 14 deaths; prematurity, 21; developmental diseases, 28; enteritis, 77. Notified attacks of infectious disease during the month totalled 249, of which 120 were scarlet fever, 41 diphtheria, and 68 typhoid fever.

Sydney Water Supply.—Dr. Stokes, medical officer and biologist to the Sydney Board of Water Supply and Sewerage, has furnished a lengthy report of a visit of inspection to Prospect and the settlements surrounding it. He states that:—"Rabbits are thick, especially around the upper part of the canal. I have never seen these rodents in such hordes as I have observed them in and around a large heap of shale over the line of the Cataract tunnel, about half a mile to the north of Wonson's. This accumulation is, in truth, a huge warren, from which the rabbits descend in thousands to prey upon the surrounding country. By running a light netting fence around this heap, and providing the same with suitable openings and traps, it is certain that the whole colony could be exterminated in a few weeks, because the animals would be compelled by hunger and thirst to get away to secure food and drink. I understand that over a hundred bodies are removed weekly from the canal in varying stages of decomposition, and I observed that sections of the boundary fence were being made rabbit-proof by wire-netting. It will probably be found necessary to extend this protection along the whole canal."

Bubonic Plague.—The bubonic plague has made its appearance on the Clarence River. Two deaths have occurred, and one case has been reported since. The information was first conveyed to the Board of Health in a telegram from Dr. Page, of Grafton, to the President of the Board of Health. It was stated that a number of rats had been dying on the farms at Ulmarra from which the patients had come. Immediately on the information being received, Dr. Millard, of the Board of Health, with a staff of assistants, was despatched to Ulmarra. Dr. Millard has confirmed the diagnosis, and some dead rats found at Ulmarra have been examined and proved to be plague-infected. Every precaution is being taken to prevent the spread of the infection. No definite information is available as yet to enable the authorities to say how the infection has been conveyed to the district, though it has been suggested that infected rats have been conveyed thither from Brisbane.

Victoria.

Preservatives in Milk.—The Bacchus Marsh Concentrated Milk Company has been proceeded against at the Prahran Court, Victoria, on a charge of having sold milk containing boron trioxide. Dr. Norris, of the Board of Public Health, said the milk in question contained 300 grains to the gallon, and he considered it injurious to health. Apart from that, the use of the preservative was unnecessary, as refrigeration would keep the milk as long as the Bacchus Marsh Company said it should be kept. He disagreed with the view contained in the progress report of the New South Wales Commission, that concentrated milk should contain a preservative, and that such caused no injury to health. Dr. Springthorpe said he had used boric acid in cases of typhoid and epilepsy, also in cases of an irritable condition of the skin, and in no instance had he noticed any injurious effect. Assuming the concentrated milk was made by pasteurising, it was impossible for it to be kept more than a day without the use of some preservative. The Chairman (Mr. Witt), in giving a majority decision of the Bench, said the law did not recognise the use of preservatives, and the defendant would be fined £2, with £7 7s costs. He added that it would be well if the question of preservatives could be settled by scientists one way or the other, so as to protect manufacturers from annoying prosecutions.

Queensland.

Bubonic Plague.—A fatal case of plague occurred in Brisbane on January 2nd. The patient, a boy aged 15 years, resided in South Brisbane, and worked at a produce store in the city. The last case of plague in Brisbane occurred on September 15th, 1904, an interval of 109 days between the two cases. A case of plague occurred at Cooper's Plains, eight miles from Brisbane, on October 27th, 1904. Since the issue of the last bulletin on Octorber 22nd, 1904, 7102 rats and mice have been destroyed in Brisbane; 3381 rats and 653 mice were examined at the State Bacteriological Institute. Of the above, 10 rats were found to be plague-infected. Included in the above figures are 200 rats found on the 4th and 5th inst. on the premises of the above-mentioned produce store, where the late plague patient worked. Of these, two were found to be plague-infected. A departmental gang of 20 men has been constantly employed for 13 months in rat destruction, and daily examination of the bodies of the rodents is carried out at the Bacteriological Institute.

West Australia.

Food Adulteration.—The Fremantle Board of Health recently resolved to test the quality of foodstuffs retailed by the various grocers at the port. As a result of the analyses made, 11 retailers' employees were charged with having sold articles of food which were not what they were represented to be. A Chinese was fined the nominal sum of 10s and costs for selling as malt vinegar what proved to be 78 per cent. of vinegar made from sugar and 22 per cent. of water. The maximum penalty is £20. In another case the defence was that the customer knew he was being supplied with wine vinegar, but the statement did not avail, and a fine was recorded. Several were condemned to pay 10s and costs each for vending adulterated coffee. In one instance the mixture contained 85 per cent. of chicory and 14·5 per cent. of coffee. The Act provides that where "coffee and chicory" are sold mixed it must be classified as such. Finally, a person was fined for retailing as pepper a mixture containing 30·9 per cent. of rice. The prosecutions will doubtless have a beneficial effect.

THE HEALTH OF ADELAIDE.

Abstract of the Report of Dr. T. Borthwick, the Medical Officer of Health.

The population was estimated by the Registrar-General to be 39,625 on January 1st, 1904. On the corresponding date of last year it was estimated to be 39,485, thus giving an increase of 140 for the last 12 months.

Births and Deaths.—There were registered during the year ended September 30th, 886 births and 809 deaths. The birth-rate and death-rate per thousand are thus 22·35 and 20·41 respectively. This death-rate includes all deaths registered within the city bounds. Of the 625 deaths, 104 were under 1 year of age, giving an infant mortality of 11·7 per 100 births. While the birth-rate remains low, the year has been a very favourable one in regard to general and infant mortality and also in regard to deaths from infectious diseases and pulmonary tuberculosis. There has been an almost continuous decline of the total death-rate since 1898-9. The rate for the present year is the lowest on record and stands at 15·77, as against 17·95, the average of the preceding five years. The infant mortality is also the lowest on record and stands at 11·7, as against a similar average of 14·9.

Infectious Diseases. — *Typhoid.* — Ninety cases were reported, of which 60 were imported from outside districts; this leaves 30 cases which apparently had their origin in the city. One of these can be accounted for, having derived infection from a pre-existing case in the house; four were contracted in hospital. It was impossible to trace the origin of the remaining 25 cases. Of the 30 cases which were apparently local, 22 were treated in hospitals, and the remaining 8, as well as two imported cases, at their own homes, under the supervision of the city trained nurse in respect to isolation and disinfection. In only one house did infection spread to another inmate from the original patient. Three deaths were registered during the 12 months.

Diphtheria.—Ninety-nine cases were reported, of which 56 were imported for hospital isolation and treatment. This leaves 43 cases, apparently of local origin, to be accounted for. Four of these undoubtedly were infected from the first patient in the house; three were contracted in hospital. The remaining 36 cases were not traced to any special source. Of the 43 cases, 25 (as well as the three contracted in hospital) were treated in hospital, the remaining 16 being isolated at home as thoroughly as was possible under the city trained nurse's supervision. In only one house did infection spread to other inmates after isolation of the first patients. Three deaths were registered during the 12 months.

Scarlet Fever.—This disease was extremely prevalent last year, but its prevalence has gradually declined during this year. Sixty-nine cases were reported, of which ten were imported from outside districts for isolation and treatment in hospital, and 59 cases of apparently local origin. Sixteen were sent to hospital for isolation and treatment, and the remaining 43 were isolated at home as thoroughly as possible, under the city trained nurse's supervision. There was no reason to suspect any milk supply as being the disseminator of infection. The disease spread through the influence of schools. One death was registered during the 12 months.

Erysipelas.—Fifty cases were reported, of which 16 were imported for hospital isolation and treatment. The 34 cases of apparently local origin were not markedly associated with insanitary conditions. Nine of them were removed to hospital, and 25 were isolated at home under the city trained nurse's supervision Three deaths were registered during the 12 months.

Puerperal Septicæmia.—Eleven cases were reported of which 7 were imported for hospital isolation and treatment. Of the four cases of apparently local origin, all were removed to hospital. Two deaths were registered during the 12 months.

Pulmonary Tuberculosis.—One hundred and thirty cases were reported during the year, of which 41 were imported for hospital treatment. This leaves 89 of apparently local origin, giving a rate of 2·24 per 1000. Sixty-three deaths were registered during the year, giving a mortality of 1·58 per 1000. A large number of the houses in which this disease occurred were insanitary; the conditions noted being want of ventilation and want of light in rooms, dampness of walls, and dirty walls and ceilings. Some progress has been made during the year in the crusade against consumption. The Metropolitan Local Boards of Health have contributed £352 a year towards the funds of the James Brown Trust, which in return agreed to provide at least seven beds atKalyra for the treatment of poor patients in the early stages of the disease. By this arrangement it is hoped that about 30 patients will be benefited during the year. In addition to this there is the already existing sanatorium for patients able to pay, and the Government has provided for the isolation and treatment of poor patients in the advanced stages of the disease. A local branch of the National Association for the Prevention of Consumption has also been formed, and its educational effect on the people must in time be considerable. As far as the city is concerned, the education and supervision of patients is being carried on by the city trained nurse, and every house is disinfected after removal or death of a patient. The milk supplies also continue to be safeguarded under Inspector Morris's direction, but there still remains the felt want of a public abattoir to safeguard the meat supplies.

The need for an infectious diseases hospital has been felt from time to time during the year. In the case of such diseases occurring among domestic servants, or in houses among the poor where isolation is impossible, or on the premises of dairymen and their employees, it is an absolute necessity to have the patients removed to a hospital, and provision for these classes should be made without delay. It is also desirable to make further provision for bacteriological diagnosis in the case of persons too poor to pay for it, and also in cases of public interest; and in order to carry out efficient disinfection a steam disinfector should be obtained as soon as possible.

The city trained nurse has made 2097 visits during the year to 326 patients, and has assisted at or supervised the final disinfection of 266 houses.

GENERAL SANITATION.—Systematic inspection of a house to house character has been continued during the year. In addition to the systematic inspection, complaints have been attended to, and special duties, such as house disinfection, smoke observation, milk and food inspection, noxious trades supervision, inspection of lodging and boarding houses, restaurants, markets, etc., carried out. During the year 16 houses were condemned as unfit for human habitation, of which three were ordered to be taken down, while the remainder were placed in a satisfactory condition; 845 notices were served to cleanse, ventilate, or repair other houses.

The disposal of refuse removed from private premises continues to be by means of "tips" in various parts of the Park lands. These are dealt with in a systematic manner under the supervision of the City Surveyor, and the refuse is thoroughly covered every day with earth. Further, the picking of rags, etc., at the tips has been prohibited, and steps are taken to destroy all rats at the tips. But such a method of treating refuse in a city, even under the best management, is an unsatisfactory one, and a menace to health, both in the present and the future, and a destructor must be looked upon as an essential part of the sanitary equipment of the city. But while a destructor is under consideration, it would be of great advantage to the public health to provide properly constructed carts for the removal of house refuse.

The by-law prohibiting spitting on the footpaths is now in force, and this objectionable and dangerous practice has been to a considerable extent checked.

In the matter of lavatory accommodation, Adelaide is decidedly behind the times, and it is imperative for the Board to take into its early consideration the provision of public conveniences for both men and women.

UNIVERSITY INTELLIGENCE.

Sydney.—The following students have passed the annual examinations in the faculty of medicine:—*First Year Examination.*—Renwick Scholarship for general proficiency in the subjects of the examination: G. A. Sampson. Professor Haswell's prize for zoology (class examination): E. W. Ferguson. Professor Haswell's prize for zoology (laboratory notes): Sophia R. Child, W. E. Grigor, Ethel C. Parnell, equal; *prox. acc.*, H. A. Tebbutt. Collie prize for botany: E. W. Ferguson. Biology.—Honours: Class I., E. W. Ferguson, G. A. Sampson. Class II., K. Smith, K. A. Golledge, R. G. Waddy, J. W. R. Hoets. Chemistry.—Honours: Class I., G. A. Sampson, K. Smith, E. W. Ferguson, K. A. Golledge. Class II., H. Parkinson, M. S. Patterson, J. F. Fahy, R. G. Waddy, H. Bullock and C. P. Stewart equal, B. J. Coen. Pass.—Hugh George Allen, Howard Bullock, Robert Smith Candlish, B.A., William John Smythe Carroll, B.A., Bernard Joseph Coen, Charles Alexander Crothers, Ernest Noel Brougham Docker, James Francis Fahy, Eustace William Ferguson, Donald Fraser, M.A., Kenneth Alfred Golledge, William Ernest Grigor, Douglas Bayly Hill, John William van R. Hoets, Henry Hallam Parkinson, Mervyn Stuart Patterson, George Atkin Sampson, Archibald Fletcher Sinclair, Gerald Keith Smith, Kenneth Smith, Colin Percival Stewart, Cuthbert Arnold Verge, Richard Granville Waddy. *Third Year Examination.*—John Harris Scholarship for Anatomy and Physiology: H. R. G. Poate. Passed with distinction: H. R. G. Poate, J. E. F. Deakin. Passed with credit: J. I. Shellshear, O. A. A. Diethelm, J. G. Edwards, C. H. B. Bradley, H. H. Schlink, H. E. Pridham, L. B. Elwell; A. MacInnes, B.A., and F. O. Stokes equal. Pass: W. J. Binns, M.A., H. O. Chapman, F. Craig, C. W. Maher, R. E. McLelland, A. J. Mackenzie H. M. Moran, G. A. Paul, E. H. Rutledge, V. O. Stacy, A. B. Steele, H. B. Walker-Smith, W. J. White, O. E. B. Withers. *Fourth Year Examination.*—Passed with distinction: T. C. Parkinson. Passed with credit: G. Bell, E. J. Day, E. H. Molesworth, equal; S. H. Harris, H. T. C. McCulloch, W. H. Quaife, equal; C. R. Palmer. Pass: A. S. Aspinall, Jessie S. Aspinall, Constance C. Binney, A. C. Cahill, J. P. Clifford, H. E. C. Donovan, D. D. Gibson, J. S. Harris, E. S. Harrison, J. G. W. Hill, B.A., G. H. S. Lightoller, A. McKillop, R. C. Miller, A. H. Moseley, T. L. O'Reilly, R. A. Parker, J. B. St. Vincent Welsh, C. P. Sapsford, C. St. L. Willis, E. A. Wherrett, Mary W. Wylie. *Fifth Year Examination.*—Honours at Graduation (M.B. and Ch.M.).—Class I.: None. Class II.: F. G. M. Simpson, P. E. W. Smith, J. L. McKelvey, Susannah H. O'Reilly. Subjects of the Fifth Year Examination.—Passed with credit: F. G. M. Simpson, J. W. Power, J. L. McKelvey and P. E. W. Smith equal; V. McDowell, C. Shellshear. Pass: E. A. R. Bligh, J. Coen, A. E. Finckh, K. R. W. Goergs, J. J. Holland, S. Kay, J. R. Leslie, J. M. McEncroe, Susannah H. O'Reilly, A. S. C. Roberts, Sarah L. Ure, A. Verge, G. H. Vernon, R. J. N. Whiteman, E. H. Young.

The Senate of the University of Sydney has adopted an amended curriculum for the Department of Dental Studies leading to the degree of Bachelor of Dental Surgery. The curriculum is as follows:—The entrance examination will be the same as that for students in medicine and science. Candidates for the degree of Bachelor of Dental Surgery shall, during the first year, attend the following courses of instruction:—1, physics and practical physics; 2, chemistry, introductory and metals; 3, practical chemistry, and metallurgy as applied to dentistry; 4, descriptive anatomy, including special anatomy of the teeth; 5, dissections (two terms); 6, practical histology (Michaelmas); 7, mechanical dentistry. Second year.—1, physiology (Trinity and Michaelmas, two terms); 2, physiology, practical (Lent and Trinity, two terms); 3, surgical dentistry; 4, mechanical dentistry; 5, dissections (equivalent to two terms); 6, practice in surgical and mechanical dentistry at the Dental Hospital; 7, regional anatomy. Third year.—1, physiology (one term, Lent); 2, surgical dentistry; 3, mechanical dentistry; 4, materia medica and therapeutics; 5, pathology and bacteriology; 6, practical pathology and bacteriology; 7, practice in surgical and mechanical dentistry at the Dental Hospital. Fourth year.—1, surgery and special dental surgery; 2, anæsthetics; 3, practice in surgical and mechanical dentistry at the Dental Hospital; 4, special clinical courses, (a) medicine, (b) surgery.

Melbourne.—At a recent meeting of the executive committee of the University Fund a letter was received stating that Mr. F. S. Grimwade had promised £1000 for the purpose of founding an annual prize at the University for research work in some branch of industrial chemistry. This donation raises the amount of the public subscriptions above the £11,000 necessary to secure Mr. Carnegie's promised £1000, and also the £12,000 promised by the Government as a grant on a basis of £1 for £1 on subscriptions raised.

OBITUARY.

THOMAS HARRISON, M.B., Ch.M., 1875; M.D. (Dub.), 1885, Granville, N.S.W.

We regret to record the death of Dr. Thomas Harrison, which took place at his residence, Granville, on January 8th, after an illness of about ten days. He was educated at Trinity College, Dublin, and came to New South Wales some 35 years ago. He practised at the Glebe (in conjunction with Dr. West), also at Cowra, Coonamble, Bodalla, and Brewarrina. At the last-named place he was connected with the hospital. During his residence at Granville for the last 15 years he took a deep interest in the Auburn Hospital. He was a Master of Lodge Sir Walter Scott for two years. He was also a member of the local lodge of Druids, and medical officer to several local friendly societies. He leaves a widow and six children. His funeral took place at the Field of Mars Cemetery on January 9th.

JAMES PAYNE BAKER, L.R.C.P., L.R.C.S., F.R.C.S. (Edin.),

Died last month at his residence, Tauranga, New Zealand. He was a native of Maidstone, Kent, England, and upon coming out to New Zealand was for some months acting-medical superintendent at Rotorua, and recently was *locum tenens* at Te Aroha for a short time. He was a member of the Masonic craft, and as a physician was highly esteemed.

HENRY JOSEPH FIRTH GROVES, M.R.C.S., L.R.C.P., L.S.A. (Lond. 1873), etc.,

Government Medical Officer at Broken Hill, died on December 24th. His death had been expected for some time past.

DR. JOHN SAMPSON died last month in Bunbury, Western Australia, at the ripe age of 91 years. He was one of the oldest residents in that State. The deceased arrived in Bunbury in 1851, and resided in the district for over half a century. He was always very popular. He left a widow well provided for.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane. Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol' Essence and Creosote, and find that there is little difference in their bactericidal action."—[ADVT.].

HOSPITAL INTELLIGENCE.

Royal Alexandra Hospital for Children, Sydney.—The contract for the erection of the first portion of this hospital has been signed with the firm of Stuart Bros., and the work will be proceeded with at once. This contract consists of a portion of the administrative building and of two pavilions with accommodation for 84 cots, also of laundry and engineering and pathological buildings. The sum at present available amounts to £20,000, but this contract and the building of the Nurses' Home, which should be completed concurrently, will cost at least £36,000. A large sum is still required to open the hospital in an efficient manner.

Royal Prince Alfred Hospital, Sydney.—At the monthly meeting of the board of directors of the Royal Prince Alfred Hospital held last month, the report on the work of the institution for the month of November showed that 294 patients had been admitted, of whom 51 were accident and non-paying cases, 160 were on Government orders, and 83 contributed towards the cost of their own maintenance. During the same period 170 patients were discharged cured, 60 relieved, and 26 unrelieved, while 25 had died. Twenty-eight of these had been transferred to the Carrington Hospital and one to the Walker Convalescent Hospital. The number of patients in the hospital at the end of the month was 230, the average number of beds occupied having been 225 out of the 236 available. A report was received from a sub-committee appointed to consider a scheme, prepared by M . T. H. Houghton, for the extension of the boiler power of the hospital, rendered necessary by the decision to heat the wards of the new pavilions by steam, and by the fact that the present boilers were insufficient, even for existing requirements. The scheme provided for the erection of a new boiler-house near to the laundry, and for two large boilers, each capable of supplying the maximum winter demand, at an estimated cost of £1975. The committee recommended the adoption of the report with slight modifications. It was unanimously agreed that Dr. P. Sydney Jones be elected to a vacancy caused on the board by the resignation of Mr. H. S. Levy.

Western Suburbs Cottage Hospital, Sydney.—At a meeting of the committee of the Western Suburbs Cottage Hospital last month reference of a congratulatory character was made to the fine responses made by the charitably disposed at Burwood, Strathfield, and Enfield to the call for funds for the institution. From Enfield the sum of £143 was received, and from Burwood and Strathfield combined the total was £162. A credit balance of £571 was reported. The matron reported that during the month 20 patients were admitted, 10 treated without admission, 17 discharged, 1 had died, and 13 remained in the wards. There were four typhoid patients. It was decided to hold the next annual meeting at Concord.

Perth Hospital, W.A.—The Public Works Department has been instructed by the Minister to proceed at once with the work of erecting a new wing to Perth Hospital. Parliament has voted £10,000 to the institution for the current financial year as working expenses.

Melbourne Hospital.—Competitive designs are invited, and will be received until June 30th, 190 , for the proposed new buildings for the Melbourne Hospital. Premiums of £300, £100, and £50 are offered for designs adjudged first, second, and third in order of merit. Upon payment of the above, these designs shall become the property of the committee. Plan, showing site, existing buildings, with levels marked thereon, and copy of conditions, will be furnished on application to the secretary of the Melbourne Hospital.

Hobart Hospital.—At the December meeting of the board on December 9th it was reported that during the month 185 patients have been treated in the hospital; discharged, 108; died, 7; leaving in the institution on December 1st 38 males and 32 females. The daily average number of occupied beds was 84, as compared with 67 last year, 75 in 1902, and 76 in November, 1901. In the out-patients' department 89 new cases were treated; casualties, 23. Total attendances, 410. The medical committee's report stated that for some considerable time the medical commitee has had under consideration the matter of providing separate accommodation for the treatment of phthisical patients received at this hospital, and now recommends to the board—first, that the urgent necessity for providing proper accommodation for the isolation and treatment of these cases be again strongly represented to the Government; second, that the Government be requested to have the plans, specifications, etc., for shelters, to accommodate not less than four male patients, prepared, and also for the conversion of the present recreation-room into a pavilion shelter for female cases, on the lines indicated in the accompanying communication, which the Chief Health Officer, Dr. Elkington, kindly favoured the committee with on November 5th last. The report was adopted, and it was decided to forward it to the Government. The chairman said that this being the last meeting of the year it was customary to give an account of the year's work. During the absence on leave of Dr. Lines last year, Dr. Roberts was appointed as *locum tenens*, and on Dr. Lines resigning his position at the hospital shortly after his return, Dr. Roberts was appointed to the vacant position. It was decided to appoint a public bacteriologist, and Dr. Roberts was selected for the position. Dr. Rodway had been appointed junior surgeon. An electric light had been installed in the operating theatre. One improvement had been effected during the year which had proved a very great convenience. Patients were now conveyed to and from the hospital with very great comfort, which had not been the case before. Two dressing waggons had been obtained at a cost of £10 each, but more were very urgently required.

Queen Victoria Homes for Consumptives, N.S.W.—At the last monthly meeting of the house committee of the Queen Victoria Sanatorium, Wentworth Falls, and the Home for Consumptives at Thirlmere, the medical superintendent's report at the sanatorium showed that there were 22 patients in residence. During the past month four patients had been admitted and four patients had been discharged. Of the latter, one was improved, one very much improved, and the remaining two left with the disease arrested. The matron's report (Thirlmere) showed that there were 39 patients in residence. During the month nine had been admitted, 11 had been discharged. Of those discharged, with the exception of one case, all had improved. Of those remaining in the home, one male and one female patient were failing.

The Women's Hospital, Melbourne.—At a meeting of the committee of the Women's Hospital last month it was reported by the hon. secretary that £500 had been received from the estate of the late Mr. Alfred Fenton, £480 from the Hospital Sunday Fund committee, £250 from the estate of the late Mr. James Loudon, £20 from the Port Melbourne Council, £20 from the estate of the late Alderman Bayles, £10 10s from Mr. J. W. Taverner, representing portion of the surplus proceeds from the celebrated reception held by him in London in July last, and several minor donations, totalling altogether close on £1400. In addition numerous donations in cash and kind were received or the Christmas treat to the inmates. A sum of £810, representing money raised in aid of a proposed bazaar that was to have been held many months ago, but had to be indefinitely postponed owing to the then prevailing depression, was in the hands of a trustee, and it was decided to call a meeting of the subscribers after the holidays in order to decide what should be done with it. Miss A. Bayles was appointed a life governor of the hospital in consideration of the donation from the estate of the late Alderman Bayles.

MEDICAL NOTES.

Charitable Bequests and Donations.—The secretary of the Adelaide Children's Hospital has received a cheque for £30 from Lord Northcote as a Christmas donation. The following donations to hospitals and medical charities have been made from the residue of the estate of the late Sir William Macleay, Sydney:—St. Vincent's Hospital, £2000; Sydney Hospital, £2000; Prince Alfred Hospital, £2000; Wagga Hospital, £500; St. Joseph's Hospital, Auburn, £500; Children's Hospital, Glebe, £1500; District Nursing Fund, £200; Infants' Home, Ashfield, £300; Carrington Convalescent Home, Camden, £500; Deaf and Dumb Asylum, £400; Lewisham Hospital, £1000; St. John Ambulance, £100; Camden Cottage Hospital, £200; Women's Hospital, Crown-street, £100; Balmain Cottage Hospital, £50; Benevolent Society, £300; Sydney Medical Mission, £50; Parramatta District Hospital, £50; Royal North Shore Hospital, £50; Western Suburbs Cottage Hospital, £25; Manly Cottage Hospital, £25; Marrickville Cottage Hospital, £25; St. George's Cottage Hospital, £25; Surgical Appliance Aid Society, £25; Mount St. Margaret Asylum, £55; Waitara Hospital, £50; Women's Hospital, Paddington, £25; Queen Victoria Home for Consumptives, £500. Sir Samuel Gillott has again given £250 and Sir Malcolm McEacharn £200 as their annual gift to the charities of Melbourne. The executors of the late Mr. Alfred Felton have allocated the sum of £5000 among a large number of the charitable institutions; and the executors of the late James Loudon have forwarded a further sum of £250 to each of eight of the leading charities in Melbourne. From these various sources the Melbourne Hospital has received £1280, Alfred Hospital £560, Children's Hospital £515, Women's Hospital £760; Austin Hospital for Incurables £470, St. Vincent's £70. The late Mr. Peter Dyson has bequeathed £500 to the Children's Hospital, Melbourne, and a similar amount for a cot in the Royal Alexandra Hospital for Children, Sydney.

Hospital Collections and Governorships.—The general committee of the Melbourne Hospital has declined to adopt a proposal that the Hospita

Saturday and Sunday committee should receive one annual governorship for each £5 paid over to the hospital funds, for a proportionate allocation among the church congregations which contributed, and amongst subscribers to the Hospital Saturday and Sunday movement.

Patent Medicines Regulations in New Zealand.—Sir Joseph Ward has consented to a modification of the regulations requiring the formulæ of patent medicines to be printed on each bottle. Now it will only be necessary to deposit the formulæ with the Minister for Public Health. They will only be seen by the Minister and the chief executive officer. No one else will have access to them. The regulations will come in force on June 1st, 1905.

Hospitals for the Insane in New South Wales.—In the office of the Government Architect tenders will shortly be called for the erection of the first portion of new reception buildings at the Gladesville Hospital for the Insane. The design is in accordance with the requirements of the new classification scheme, and the portion of the building to be erected will cost about £5000. Important additions are also shortly to be made to the Rydalmere Hospital for Insane.

The Dunedin Hospital Trustees have decided to equip a bacteriological room, and to procure improved appliances for the use of the honorary medical staff. The microscope and other appliances, bacteriological and chemical, required for the test room, are now being procured.

Sanitary Inspectors' Association.—At a well-attended meeting of the Sanitary Inspectors' Association held on January 6th, a letter favourable to affiliation to the Sydney body was read from the Hunter River Sanitary Inspectors' Association, and it was stated that the matter would be fully considered at an early date. A paper on "The Purification of Sewage by Natural Processes" was read by Dr. Stokes, medical adviser to the Water and Sewerage Board.

The Victoria Convalescent Home committee is taking initiatory steps towards establishing a sanatorium for consumptives in Tasmania.

PRACTICES FOR SALE.

N.S.W.: Prac. returning £700 cash. Appts. with Hospital, £100. A well-known Practice in a good district. Price, £150. Prompt buyer can have it on exceptionally easy terms.

N.S.W.: Prac. in which £500 yearly can be saved. Price for prac., furn., 12 rooms, 3 horses, everything, £400.

Queensland: Unopp. Prac. with Hosp. appt. Cash take last 18 years, £900. Appts.. £410. Price, £200. Of its kind it is the best in Queensland.

S.A.; A splendid opening is available, In two or three years time would probably be worth £1000.

S.A.: Prac. in Adelaide, which for 26 years has averaged £2000 cash annually. This is a general practice, also not a personal one. Good introduction. Price, £750.

N.Z.—Prac. near Auckland, worth £1500. Price, £600 cash; no reduction. Prac. is *bona fide*, and can be recommended.

MR. F. W. LOXTON, MEDICAL AGENT,
16 O'Connell-street, Sydney.—[ADVT.]

PERSONAL ITEMS.

Dr. Balls Headley has been nominated as Grandmaster of the Masonic fraternity in Victoria, in succession to Sir Alexander Peacock.

At a meeting of the Melbourne Board of Public Health last month, Dr. Norris received congratulations upon his appointment as chairman in succession to the late Dr. Gresswell. Dr. Norris is about 37 years of age. He had a most brilliant career at the Melbourne University, and on the completion of his course at the Unversity he went into practice at Bendigo. Later on he gave up his practice and went to Great Britain to study public health matters. While there he obtained the diploma of public health. On his return to Victoria he joined the staff of the Board of Health.

The following resolution was passed at a special meeting of the Melbourne Board of Public Health:—"That a minute be placed on the books of the board of the national loss sustained by the Commonwealth in the death of Dr. Gresswell, chairman of the Board of Public Health, and that a letter of condolence expressing the deepest sympathy of the board be forwarded to Mrs. Gresswell."

Dr. J. E. Neild, of Melbourne, who recently celebrated the 80th anniversary of his birthday, was confined to his room by serious illness for a few days at the end of last year, but has now recovered. He has resigned the appointment of Lecturer in Forensic Medicine at the Melbourne University after 40 years' service. A vote of thanks was accorded the retiring lecturer for his lengthy and valuable services to the University.

At a large and influential meeting at the Molong Town Hall on December 28th, Dr. Ross was presented with a souvenir of his long services as member for Molong in the New South Wales Parliament. The Mayor presided, and on behalf of the many friends of their guest presented him with a solid silver tray, bearing the following inscription:—"Presented to Dr. Andrew Ross, as a tribute from his old friends in Molong."

Dr. A. J. Saw has just returned to Perth, W.A., after a lengthy visit to the old country.

Dr. F. J. Ingoldby has lately returned to Albany, W.A., after an absence of two years in England.

Dr. E. Angas Johnson, of Adelaide, has returned to Australia after a nine months' sojourn in Europe and Great Britain. He intends to continue his hospital work in Adelaide, but will not again take up private practice.

According to a cablegram in the *Sydney Morning Herald*, Dr. Collins, medical superintendent of the Auckland Hospital, has been committed for trial on a charge of manslaughter in connection with the death of a patient.

Hon. Dr. C. K. Mackellar, M.L.C., of Sydney, after travelling on the Continent during the summer months, is expected to return to London about the second week in December.

Dr. Reekie, the recently-appointed medical officer for the Gisborne and East Coast district, New Zealand, has commenced his duties. Dr. Reekie takes charge of the district for one year, with right of extension of term.

Dr. F. M. Blackwood, late of Summer Hill, will commence practice at Turramurra, N.S.W., on February 1st.

Dr. and Mrs. Donaldson, of Gore, lost all their personal effects by the destruction by fire of the Grand Hotel at Rotorua, New Zealand.

Dr. Robert Church has been appointed by the University Council as a member of the High Schools Board, Dunedin, New Zealand.

At the last meeting of the board of management of the Royal Alexandra Hospital for Sick Children, Sydney, Dr. Charles P. B. Clubbe was elected president, *vice* Sir Francis Suttor, resigned.

Dr. Loughnan, of Collarendabri, N.S.W., who has been medical officer at the local hospital for 11 years, was entertained on the occasion of his leaving for Kyogle by a number of friends, and presented with an address and a cheque.

On January 10th, at the Benevolent Society's Asylum, Sydney, the official staff of the society presented the president (Sir Arthur Renwick) with an enlarged copy of his photograph.

Dr. Gervase Penny, of Clayfield, has removed from Kooyong to Rahere House, New Sandgate-road, Brisbane.

The council of the University of Melbourne have appointed Dr. Barrett, Mr. Mollison, M.R.C.S., Professor Osborne, and Professor Allen as members of the faculty of dentistry. Mr. Mollison, M.R.C.S., and Professor Osborne were appointed representatives of the University on the councils of the Australian College of Dentistry and the Melbourne Dental Hospital.

Dr. E. H. Thane has left Wagga, N.S.W., after 14 years' residence here. He was farewelled by the various bodies he was connected with and by a large meeting of citizens in the Town Hall.

Dr. Moncrieff, late resident medical officer at the Royal Prince Alfred Hospital, Sydney, has succeeded to Dr. Thane's practice.

Dr. W. Anstey Giles, of Adelaide, left by the mail steamer "Moldavia" last month on a holiday trip to Europe.

Dr. Hendry, house surgeon to the Southland Hospital, New Zealand, has been granted 12 months' leave of absence.

Dr. J. F. Anderson having disposed of his practice at Longford, Tasmania, to Dr. A. T. Hoskins, has left Longford to take up his residence at Woodend, Victoria.

Dr. George Sutton, resident medical officer of the Lady Bowen Hospital, Brisbane, has resigned his position, and left for Melbourne this month.

While Dr. Garde was driving a sulky on December 19th along Latrobe-terrace, Paddington, Brisbane, a swerve brought the sulky in front of a moving tramcar, and the former was badly damaged. Dr. Garde escaped with a sprained wrist.

The members of the nursing staff at the Warrnambool Hospital, Victoria, on December 20th, presented Dr. O'Brien, a member of the hon. medical staff of the institution, who is about to leave the district, with a handsome case of silver spoons. Dr. Brett, the resident medical officer of the hospital, who is also about to leave the town, was presented by the nursing staff with a pair of gold sleeve links.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Blackburn, C. Bickerton, M.D. (Syd.), to be Hon. Pathologist to the Royal Alexandra Hospital for Sick Children, *vice* Dr. Macdonald Gill, resigned.

Booth, Dr. Mary, to be Lecturer in Hygiene in the Education Department.

Broadbent, Percy Lewis, M.B. (Syd.), to be Junior Medical Officer in the Lunacy Department.

Cahill, J. H., has been appointed Government Medical Officer and Vaccinator at Coolah, *vice* Guiseppe Romeo, who has left the district.

Cooper, Henry Westwood, M.D. (Baltimore), to be Government Medical Officer and Vaccinator at Wyong.

Conolly, Noel, M.R.C.S. (Eng.), L.R.C.P. (Lond.), to be Junior Medical Officer in the Lunacy Department.

The following gentlemen to be Resident Medical Officers at the Royal Prince Alfred Hospital, Sydney :—

McDowell, V., M.B. (Syd.).
McEncroe, J. M., M.B. (Syd.).
McKelvey, J. L., M.B. (Syd.).
Roberts, A. S. C., M.B. (Syd.).
Smith, P. E. W., M.B. (Syd.).
Vernon, G. H., M.B. (Syd.).

The following gentlemen to be Resident Medical Officers at the Sydney Hospital :—

Bligh, E. A. R., M.B. (Syd.).
Finckh, A. E., M.B. (Syd.).
Kay, S., M.B. (Syd.).
Power, J. W., M.B. (Syd.).
Simpson, G. W., M.B. (Syd.).
Verge, A., M.B. (Syd.).

VICTORIA.

Mollinson, C. H., M.B., to be Lecturer of Forensic Medicine at the Melbourne University, *vice* J. E. Neild, M.B. (Lond.), resigned.

McWilliams, Henry Heber, L.R.C.P., to be Officer of Health for the Shire of Springfield, *vice* Edward Brock, M.R.C.S., resigned.

Norris, W. P., M.D. (Melb.), D.P.H., R.C.P. *et* R.C.S., to be Chief Medical Officer of the Melbourne Board of Public Health, *vice* Dr. Gresswell, deceased.

Philpott, Albert John William, M.B., to be Medical Superintendent of the Yarra Bend Lunatic Asylum during the absence on leave of W. L. Watkins, L.R.C.S.I.

The gentlemen named hereunder to be Public Vaccinators for the districts set opposite their names respectively, viz. :—

Cuscaden, George, L.R.C.P., *vice* J. C. Thomas, M.D., who has left the district—Metropalitan district.

Elvins, Herbert Henry Francis, M.B.—South-Western district.

Haynes, Abraham, L.R.C.P., acting during the absence of Charles Louis McCarthy, M.B.—Metropolitan district.

Stewart, Charles Alfred, L.R.C.P., *vice* Thomas Edward Atkins, L.A.H., resigned—Northern district.

Theed, William Cawood, M.R.C.S., *vice* James Charles Weld, L.R.C.S., resigned—North-Western district.

SOUTH AUSTRALIA.

To be Resident Medical Officers at Adelaide Hospital :—

Chapple, Phœbe, M.B., B.S.
Cooper, Constance Mary, M.B., B.S.
Magarey, Rupert Eric, M.B., B.S.
Scott, Malcolm Leslie, M.B., B.S.
Stokes, Alfred Francis, M.B., B.S.

QUEENSLAND.

Ffrost, Albert Ernest, M.B. (Melb.), to be Acting Health Officer at Townsville during the absence on leave of Ernest Humphry, L.R.C.P.

Godsall, G. A., to be House Surgeon to the Toowoomba Hospital.

Hutton, John Robert, M.B., to be Acting Medical Officer and Acting Health Officer during the temporary absence of Arthur Graham Butler, M.B. (Camb.).

Love, Wilton Wood Russell, M.B., M.S. (Edin.), to be Honorary Pathologist to the Department of Public Health.

Webster, F. E., M.B., Ch.B., to be Health Officer and Medical Officer at Cairns, Visiting Surgeon to the Prison, and Health Officer at Cairns, *vice* Dr. R. A. O'Brien, resigned.

TASMANIA.

Graham, A. W., M.B. (Lond.)), M.R.C.S., L.R.C.P., to be Port Health Officer at Beauty Point.
Pardey, J. M., M.B., Ch.B., to be Hon. Medical Officer to the Launceston Hospital.
Prendergast, J. J., M.D. (Irel.), M.R.C.S. (Eng.), to be Local Health Officer at Strahan.
Thompson, Lavington G., M.D., Ch.M., to be Acting Medical Officer of Health for three months at Launceston.
Wilmott, Robert, F.R.C.S. (Edin.), to be Official Visitor to the Hospital for the Insane, Launceston and New Norfolk.

WEST AUSTRALIA.

Cuthbert, John, to be Medical Officer of Health at Bayswater, *vice* J. E. F. Stewart, resigned.
Davy, Thomas George, M.R.C.S., L.S.A., to be District Medical Officer, Perth.

NEW ZEALAND.

Wheeler, William Arthur, M.D., B.Ch., to be a Public Vaccinator for the district of Catlins, N.Z.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been duly registered as legally qualified medical practitioners in their respective States :—

NEW SOUTH WALES.

Alsop, Herbert Fabian, L.R.C.P. (Edin.), 1903 ; L.R.C.S. (Edin.), 1903 ; L.F.P.S. (Glasg.), 1903.
Cane, Herbert Du, M.B., Ch.M. (Glasg.), 1891.
Finckh, Alfred Edmund, M.B. (Syd.), 1905.
Georgs, Karl Randolph Wilhelm, M.B. (Syd.), 1905.
Hains, George Myer, M.B., 1898 ; B.S., 1899 (Melb.).
Holland, John Joseph, M.B. (Syd.), 1905.
Kay, Stuart, M.B. (Syd.), 1905.
Leslie, James Robert, M.B. (Syd.), 1905.
Lidwell, Mark Cowley, M.B., 1902 ; B.S., 1903 (Melb.).
McEnroe, James Michael, M.B. (Syd.), 1905.
McKelvey, John Lawrence, M.B. (Syd.), 1905.
O'Reilly, Susannah Henessy, M.B. (Syd.), 1905.
Power, John Wardell, M.B. (Syd.), 1905.
Salkeld, Albert Ernest, L.R.C.P. (Edin.), 1900 ; L.R.C.S. (Edin.), 1900 ; L.F.P.S. (Glasg.), 1900.
Shellshear, Cyril, M.B. (Syd.), 1905.
Simpson, Francis George Macneill, M.B. (Syd.), 1905.
Sisca, Natale, M.D. (Naples), 1885.
Smith, Percy Edward Walton, M.B. (Syd.), 1905.
Walker, Robert Milne, M.B., B.S. (Edin.), 1904.
Whiteman, Reginald John Nelson, M.B. (Syd.), 1905.
Wilson, Tasman John George, M.B., Ch.B. (Edin.), 1900.
Vernon, Geoffrey Hampden, M.B. (Syd.), 1905.
Young, Edgar Harold, M.B. (Syd.), 1905.

VICTORIA.

Box, Matthew Henry, M.B. (Melb.), 1904.
Cameron, Robert Miles Fletcher, M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1903.
De Garis, Mary Clementina, M.B. (Melb.), 1904.
Forsyth, Robert Leslie, M.B. (Melb.), 1904.
Fulford, Howard Cecil, M.B. (Melb.), 1904.
Harcourt, Clive, M.B. (Melb.), 1904.
Latham, Leslie Scott, M.B. *et* Ch.B. (Melb.), 1904.
Laurence, Joseph Henry Harris, M.R.C.S. (Eng.), 1880.
Legge, Frank Robert, M.B. (Melb.), 1904.
Matthews, John Thomas, M.B. (Melb.), 1904.
Mendelsohn, David, M.B. (Melb.), 1904.
Parramore, George William, M.B. (Melb.), 1904.
Patterson, Sydney Wentworth, M.B. (Melb.), 1904.
Quick, Balcombe, M.B. (Melb.), 1904.
Robertson, Andrew Stuart, M.B. (Melb.), 1904.
Schütze, Harry Leslie Hugo, M.B. (Melb.), 1904.
Shields, John Warburton, M.B. (Melb.), 1904.
Short, Robert Edgecumbe, M.B. *et* Ch.B. (Melb.), 1904.
Turnbull, Henry Hume, M.B. (Melb.), 1904.
Turner, William Charles Blackley, M.B. (Melb.), 1904.
Williams, Adela, M.B. (Melb.), 1904.

***Additional Qualifications Registered* :—**

Huchell, Edgar Victor Roy, M.D. (Melb.), 1904.
Merrillees, James Frederick, F.R.C.S. (Edin.), 1904.
Stephens, Henry Douglas, M.D. (Melb.), 1903.

QUEENSLAND.

Dowling, Francis Joseph, M.B. (Lond.), 1856 ; M.R.C.S. (Eng.), 1858 ; L.S.A. (Lond.), 1858.
Stevens, William Woodburn, M.B., M.Ch. (Syd.), 1898.
Whishaw, Reginald Robert, L.R.C.P. (Lond.), 1885 ; M.B., 1886 ; B.S. (Camb.), 1888 ; F.R.C.S. (Eng.), 1888.

BIRTHS, MARRIAGE AND DEATHS.

BIRTHS.

BINNEY.—December 30th, at Sydney, the wife of E. H. Binney, M.B., Ch.M.—a son.
BLACKALL.—December 11th, at her residence, Westbourne, Queanbeyan, N.S.W., the wife of Dr. Blackall—a daughter.
DAVIES.—January 2nd, at 9 L'Avenue, Newtown, Sydney, the wife of Reginald Davies, M.B.—a daughter.
FLYNN.—January 4th, at her residence, 44 College-street, Hyde Park, Sydney, the wife of J. Flynn, M.B., M.Ch.—a daugeter.
L'ESTRANGE.—December 29th, 1904, at "Coira," Kelvin Grove, Queensland, the wife of Dr. Guy L'Estrange—a son.

BOSTON MEDICAL LIBRARY. NOV 20 1905

MARRIAGE.

CAHILL—WHEAR-ROBERTS.—December 17th, 1904, John Hampton Cahill, M.B., Ch.M. (Syd.), of Coolah, N.S.W., to [illegible] Murielle, second daughter of J. Whear-Roberts, of Blayney, N.S.W.

DEATHS.

EAMES.—On November 30th, at his residence, Marathon, Wynnum, Queensland (suddenly), William Bunbury Fairfax Eames, L.R.C.S. (Irel.), L.R.C.P. (Edin.), son of the late Rev. Benjamin Wilson Eames, rector of Swinford and Dean of Kilconduff, West of Ireland.
HARRISON.—On January 8th, at his residence, West Hampton, Granville, Sydney, Thomas Harrison, M.A., M.D., Ch.M. (Trin. Coll., Dub.), aged 53 years.
MARKS.—On December 30th, 1904, at Yangan, Queensland, Edward George Keighly Marks, M.D.

BOOKS RECEIVED.

The Justices' Manual and Police Guide. Compiled by Daniel Stephen, Sergeant of Police. Sydney : Angus & Robertson. 1905. Price, 5s.
Some Methods of Hypodermic Medication in the Treatment of Inoperable Cancer. By J. Shaw-Mackenzie, M.D. London : Baillière, Tindall & Cox. Sydney : L. Bruck. 32 pages demy 8vo. Price, 1s net.
Practical Manual of Diseases of Women and Uterine Therapeutics, for Students and Practitioners. By H. Macnaughton-Jones, M.D., M.Ch. Ninth edition. London : Baillière, Tindall and Cox. Sydney : L. Bruck. Pages 1021, 637 and 125 coloured and plain plates. Demy 8vo. Price, 21s net.
Landmarks and Surface Markings of the Human Body. By L. B. Rawling, M.B., B.C. (Cantab.), F.R.C.S. (Eng.). 70 pages ; 29 illustrations. London : H. K. Lewis, 136 Gower-street. Price, 5s net.
Health and Diseases in Relation to Marriage and the Married State. Edited by Geh. Medizenrath, Prof. Dr. H. Senator, and Dr. Med. S. Kaminer. Authorised translation by J. Dulgerg, M.D. Vol I., 477 pages. New York and London : Rebman Ltd. Price, 30s net complete two vols., or 35s net half roan.
Light Energy : Its Physics, Physiological Action, and Therapeutic Application. By Margaret A. Cleaves, M.D. 811 pages. New York and London : Rebman Ltd. Price, 21s net.
The Treatment of Syphilis. By F. J. Lambkin, Lieut.-Colonel R.A.M.C. London : Baillière, Tindall & Cox. Sydney : L. Bruck. 1904. Price, 3s net

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. L. Henry, St. Kilda ; Victoria ; L. D. Montgomery, Tale Tin Mines, Queensland ; Dr. W. T. Cuthbert, Gundah, Queensland ; Dr. R. H. Todd, Sydney ; Dr. Litchfield, Sydney ; Dr. J. A. Dick, Sydney ; Dr. Sinclair Gillies, Sydney ; Mr. L. Bruck, Sydney ; Dr. R. J. Millard, Sydney ; Dr. H. C. Taylor Young, Sydney ; Dr. J. B. Gunson, Adelaide ; Dr. W. H. Lang, Corowa, N.S.W. ; Dr. B. B. Ham, Brisbane ; Dr. D. Weild, Brisbane : Dr. S. H. Hughes, Sydney.

AUSTRALASIAN MEDICAL GAZETTE.

THE RELATION OF THE MEDICAL PROFESSION TO THE GENERAL PUBLIC.

Presidential Address delivered at the Annual Meeting of the Ballarat District Branch of the British Medical Association.

By James T. Mitchell, M.D. (Aberd.), M.R.C.S. (Eng.), Ballarat.

I CRAVE your indulgence this evening in that I have selected as the theme of my address an ethical rather than a scientific subject. I am not insensible of the recent splendid achievements in medicine and her allied sciences, and of these I will briefly indicate a few. The study of the life history of the Trypanosoma, which has placed the etiology of Sleeping Sickness upon a scientific basis; the perfecting of the operation of Prostatectomy, with which the name of Freyer is intimately associated, and which has brought comfort to many a man in the decline of life; the investigations into the properties of Radium, Uranium and Thorium activity, in which M. Curie and his talented wife and Becquerel have done so much to modify our ideas of Force; the examination of the properties of Kathodic Rays with ions and electrons, which have caused us to pause and reconsider our theories of the construction of Matter; the daring excursions into what is almost a fairyland of fermentations, which may upset all our old ideas even of life itself, and in which the names of Büchner, Croft Hill, Bertrand and Cohnheim stand out so prominently. Fascinating as these things are, and worthy of our attention, I pass them by to-night to consider a subject of practical importance to us here at this time—The Relation of the Medical Profession to the General Public; and I want to begin by asking a question: Are we as a Profession losing the confidence and goodwill of the general public?

It seems to me that for some reason we are, to some extent, losing the grip of the people, many of whom are beginning to feel that they can do very well without us except in serious cases, and even then only seek our aid in a half-hearted fashion, without much faith in our methods. That there is some truth in this I am assured. Many of the more intelligent people will assert their disbelief in drugs and avoid using them as far as possible, except at their own prescribing, and further, will carry out only so many of our instructions as may be pleasing to themselves. They reserve to themselves the right to alter or to amend our treatment as seems good in their sight, and they please themselves whether they inform us of these alterations or not. At present I am not concerned with the righteousness or otherwise of this; but I give it to illustrate the attitude of the mind of the said general public. For this state of things we must ourselves be somewhat to blame. It is no uncommon thing to hear a medical man, especially if he has allowed his knowledge of *Materia Medica* and *Therapeutics* to become somewhat rusty, tell his patients that drugs can do no good, or that he does not believe in medicines for this case. This may, of course, be quite true, but it is not always quite wise to state it, for the public will quickly generalise what is meant to be a particular statement. And then, again, even Jove himself sometimes nods, and the overworked practitioner will occasionally make a slip in his diagnosis in the stress of hurry, worry, or fatigue. Let us bear in mind the fact that the public never forget nor forgive these slips, one of which will overweigh many a successful case; for a man is usually discussed in the light of his failures rather than of his successes.

The public will sometimes explain their unwillingness to procure medical advice on the ground that our fees are abnormally high, and in newspaper correspondence the guinea fee is often quoted. The fortunate few who are able to collect guineas in this way are so far between that they are scarcely worth considering, for ordinary attendance can be obtained in Victoria at fees ranging from half-a-crown to ten shillings, while in any prolonged illness the medical attendant will always take the circumstances of the patient into consideration, and adjust his charges accordingly. If we compare the scale of charges made by qualified medical men with those made by irregular practitioners we can scarcely fail to marvel at the fees which are demanded by, and paid to, the quacks. Twenty, thirty, fifty and even one hundred pounds have frequently been paid in this district to unqualified men, sometimes even in advance, while a demand for a quarter of these sums by a duly qualified man would have been looked upon as an extortion.

Much misconception exists in the minds of the labouring classes with reference to us as a profession. They certainly regard us as Tories of the most extreme variety, who not only have no sympathy with the aspirations of the masses, but who use every lawful means to prevent the realisation of those aspirations. They fail to distinguish between men and methods, for they seem not to understand that it is their crude attempts to make a Garden of Eden by Act of Parliament which we fear, while we earnestly believe that our own welfare is inextricably bound up with theirs, and that whatever affects them for good or ill directly as well as indirectly affects us too. And there is, further, a general impression that we are a "protected" body of men, in proof of which we are reminded of the many Medical Acts which have been passed by various Parliaments in our favour. It is almost vain for us to assert that the whole scope and tenor of these Acts is to protect the public and to show them clearly what men are qualified to practice physic and who are not so qualified, leaving the public perfectly free to drug itself in any way it pleases. The Medical Acts certainly allow us to recover our fees for medical attendance; but the most arrant quack can also recover, in common law, if he can show he has not pretended that he was legally qualified, and that the patients have placed themselves under his care knowing him to be unqualified. Here is a distinction without much difference in our privileges.

In England and in most States in the Commonwealth we have to pay for the somewhat doubtful privilege of being placed upon the Medical Register, and have to be watchful lest, through some failure to communicate a change of address, our names are not dropped off. Having been registered, we are compelled to supply the Government, gratis, with certificates of death, carefully and faithfully filled up and attested, and are from time to time asked to supply the Government departments with special information of greater or less value. Within the last few months we have all of us received schedules asking many questions as to the diminishing birth-rate, and again as to the prevalence of venereal diseases. This information is either valuable or worthless to the State. If there is any value in it, the State should honestly pay for it, as they pay for legal advice when they ask for it. Our profession ought not to allow itself to be imposed upon by yielding to these encroachments. A firm and united stand would soon cause these things to fall into their proper place. We are further compelled, under heavy penalties, to supply both State and local authorities with a most detailed notification of every infectious disease which may be under our care. This notification involves the writing up of full particulars on three separate forms, two of which must be promptly posted or otherwise delivered to the authorities. For this the lavish fee of two shillings is allowed, while should we fail to report any case, we are liable to be arraigned at a police court as if we were malefactors, and to be fined an amount equal to the pay for 200 reports. These are some of the "privileges" allowed us by the Medical Acts.

One of the most unpleasant aspects of our profession, and one that most excites the antagonism of our patrons, is the fact that we have to make our living out of their misfortunes, and to send in our bills of costs at the time when people are least able to meet them. I am well aware that we, as a profession, do not wish ill to our friends, and yet it is only by their sufferings that we are able to live. I have the greatest sympathy with the Chinese method of paying the doctor during the period of health, even if it involved loss of income during periods of sickness. The lodge practice is a scientific attempt to grapple with the subject, and a more striking illustration is the arrangement in our Army and Navy, where the medical men are charged with the duty of maintaining the health of the soldiers and sailors. Their labours are fairly light and easy when they succeed in their task; but if by accident or other cause sickness becomes established, their duties are onerous. It is therefore greatly to the advantage of the army and navy medical services to grapple with the early stages of disease, and thus reduce their work to a minimum. Some of the largest railway companies, mines, manufacturing and trading companies and schools have medical officers attached to them, whose sole duty it is to watch over the health of those under their care. This principle might easily, and with advantage, be extended to private families, so that the household doctor should watch over the health of every member to prevent ill-health if possible, or, at the worst, to deal with it in its earliest stages. It is surely better to avoid illness by being safeguarded against it than to be cured when one is already ill.

The coming physician must, then, be a man educated along the lines of preventive medicine, for he will be judged by a public sentiment which will regard disease as a reflection, not only upon the patient, but also, and in a larger degree, upon his medical adviser. Personally, I look forward to a time in the near future when at any rate infectious diseases will be considered as disgraceful as we now consider a dirty or vermin-infested skin; and that because the public will have grasped the idea that these infectious diseases are preventable, and therefore ought to be prevented.

At the Melbourne Intercolonial Medical Congress in 1889, I read a paper in which I urged that the medical practitioner should be an officer of the State. I will not weary you with a repetition of that paper, but will give you the gist of the argument in a few words. The value of a man to the State is proportionate to the amount of work he is able to do. This amount can only be at its maximum when he is in good health, while disease and premature death will rob the State either temporarily or permanently of the value of his work. Hence it is to the interest of the State as a whole that all its members should be in the best of health and in their highest working efficiency. If this be so, it is a great mistake to leave such a vitally important matter to chance or opportunity. The State has already decreed that education is necessary to its members, and has opened its schools free of cost to all children who may be sent to them. It has further decreed that preventive medicine should be freely at the call of all the people, through the system of central and local boards of health and the various sanitary equipments. I therefore argued that, much more, should the State provide means of regaining health, freely open to all people equally. In that case the medical man would be the servant of the State instead of the individual. Such a scheme could be as easily managed as the Education Department, nor would its adoption prejudice physicians who did not wish to come under it any more than our educational system injures private schools. Some of the most successful schools in the State are supported entirely by private fees, which yield to the teachers incomes at least as large as they would earn in the Department. And, similarly, medical men who elected to continue in private practice would find that there was scope for this, and a fair livelihood to be thus obtained. The club difficulty would be settled once and for ever, for the friendly societies, freed from the necessity of providing medical attendance for their members, would restrict their efforts to insurance against loss of employment during sickness or other disabilities.

An able article in a recent number of the *British Medical Journal* gives an advance notice of Héricourt's "Les Frontiers de la Maladie," and some of the remarks are so *apropos* to the subject in hand that I must ask you to pardon me if I make use of them here. It points out the uncertain nature of the knowledge on which the healing art is largely based, and the consequent defects in our therapeutic equipment; also the inevitable result of the evolution of scientific medicine, namely, the tendency to change from the cure to the prevention of disease. We must all deplore the fact that we are only called in to deal with the end of a disease rather than with its beginning. Think for a moment of the stages of an ordinary infectious disease. There is first the introduction of the germ. Then comes the incubation period, more or less prolonged, in which the germ makes itself at home in its host, and, having taken possession, mulitiplies at the amazing rate we are beginning to understand and to realise. Last of all is the stage when the body, poisoned by the toxins of this army of germs, shows signs of vigorous reaction or of serious injury. And it is only in this last stage that the physician comes upon the scene. Is it any wonder that our efforts are frequently ineffectual, and that our methods fall into discredit, while we, powerless to interfere with the course of the disease, have to content ourselves by steering the patient as skilfully as we know how through the dangerous passages, watching for rocks and shoals and treacherous cross-currents? A calm consideration of what we are able to do in an established typical case of typhoid fever will often dispirit a scientific physician, while even the general public have an idea that good nursing is half the battle. But, as Héricourt says, the sanitarian can, to a large extent, strangle infectious diseases in their cradle. If, again, we had the opportunity of correcting the early disorders of nutrition, of which they are the outcome, we might be able to accomplish much towards preventing the development of kidney diseases or of affections of the liver or the stomach.

It is possibly characteristic of this democratic country that a medical practice is purely a personal affair, and is not held by the practitioner in any sense as it is held in older lands. Here, the patients very distinctly decline to be bought and sold in a private practice, as many a man has found to his sorrow when he has purchased what he thought was a good thing. Very much will depend upon the new-comer himself as to whether or not he will be supported by the clients of his predecessor. And, curiously enough, this support will depend in a minor degree only, upon his professional skill. Much more important in the eyes of the discerning public is some personal charm, or social status, or else a fortunate result of treatment in one of his early cases, which may be a *post* or a *propter hoc*—either will do equally well. It matters not whether this fortunate case has been medical, surgical, or in some branch of specialism. If it has been successful, the new-comer is straightway considered to be possessed of all the medical virtues and able to undertake any case, no matter what its nature. The reasons why a particular medical man is called to attend a particular case are frequently quite as extraordinary as the reasons why someone else is not called in. Most of you have heard of a gentleman in this city who positively refused to have a certain consultant because the doctor's father had helped to build the patient's house. And even when a medical man is well established in a town, he has no guarantee whatever that his old patients will not pass him by. For no apparent reason they will call in a rival practitioner and keep him in attendance for months or even for years before they return to their regular family adviser. Especially is this to be noticed among retail tradesmen, who seem to think it necessary or advisable to give "turns" to such of the medical faculty as happen to be numbered among their customers. The consequence of all these changes is that one does not get a grip of family idiosyncrasies as one can do where practice is more settled, and thus our work is not as effective as it might otherwise be. The patients undoubtedly suffer, but the practice of medicine also suffers in reputation to a corresponding degree.

Very gradually, indeed, is the public being educated up to the idea that the physician is the medical adviser of the family. Evolving, as the physician has done, from the leech and the apothecary, it is a hereditary instinct in our patients to expect something tangible for their money. This has been given them by a large section of our profession until very recent times, for many doctors still dispense their own medicines. I grant you that in country villages this may frequently be a necessity, but in towns there should be little excuse for it. As a profession, we shall gain in esteem when we come to be regarded purely as advisers, and patients may even learn, by-and-bye, to go away without a prescription when it is clear that medicines are not required, but that some sanitary defect must be remedied, or some vicious habit abandoned, in order that health may be regained.

The old proverb, "A man who is his own physician has a fool for his patient," is wearing rather thin. Among intelligent people the habit of self-prescribing is growing rapidly, and we ought to consider how far we ourselves are to blame for the change. Naturally there are many causes for this, but among them are the discussions upon medical subjects in the lay press, frequently contributed to by leading medical men, and columns of advice in certain newspapers, written by "A Family Doctor" or some other benevolent practitioner. Probably the greatest factor is the enormous supply of proprietary medicines, the advent of which is well within the lifetime of most of us. If these medicines had to rely solely upon the specious advertisements of their makers the sale would be large enough, but we ourselves add largely to it by prescribing many of them. It has often been a puzzle to me why we prescribe them. Recent writers in the daily press, who have assumed the position of championing the druggists, have boldly asserted that many medical men are ignorant of the art of prescription writing, and so fall back upon the proprietary preparations. It must be more than a spirit of idleness. Admittedly, it is much easier to write out a trade name with an easily remembered dose than to enumerate the details and quantities of the drugs we wish to exhibit, and the adjuvants and vehicles we think will make up an agreeable and elegant mixture. We are indebted, in some measure, to these manufacturing chemists for their lessons in the art of disguising disagreeable tastes and odours, but beyond that they are very potent rivals to our profession. Self-prescribing is always a dangerous art, and it is our duty to minimise it by avoiding, as far as possible, the ordering of proprietary medicines, which, once used by our patients, become as household words. Tabloids, palatinoids, soloids, and so on, are most useful forms of medication for internal as well as external use, and our patients find this out quickly enough, often to their own detriment. Why does not our own pharmacopœia provide us with drugs in a palatable form ? Why should we have to order, say, *cascara* in a proprietary preparation to have it still effectual and yet pleasant enough for a child to take ? Surely the eminent pharmacologists who compile the British Pharmacopœia could exercise their ingenuity so as to ensure the potency of disagreeable drugs, and, at the same time, present them to us in an agreeable and palatable form, without compelling us to encumber our prescriptions with adjuvants which, with our inferior knowledge, may not be by any means the best available.

It is but a truism to assert that no profession or class of men in the world do so much honorary work as ourselves. Beginning in a laudable desire to alleviate human suffering, we have gradually allowed ourselves to be seriously imposed upon. I am well aware that another consideration has been imported, and that by no means a worthy one, namely, the advertising of one practitioner at the expense of another of his colleagues. The temptation to do this kind of thing is constantly placed before junior members of the profession, often in the most insidious and even flattering forms. Hence we have honorary surgeons attached to rowing, football, athletic and racing clubs, fire brigades, agricultural societies, and other organisations where the office is almost a sinecure, and the surgeon's name figures in the annual report. Should occasion arise requiring the services of the honorary surgeon he is expected to render " first aid " to men who are probably as well able to pay for attendance as any other of his patients, or who have been injured in the employ of wealthy men or societies, able honestly to pay reasonable charges for this as for any other kind of work.

The question of hospital practice is at least as important as any aspect of our relation to the public. Taking the word in its original meaning, as derived from *hospitalium* (the guest chamber), I quite agree that it is our duty as well as our privilege to do all in our power to alleviate the suffering and assist in the restoration to health of our guests. If these guests were really needy ones, instead of being so often greedy ones, it would be ideal work ; but any of us who are at all intimately associated with hospital work must have felt many a heartburning over the impositions practised on us by people who are in no sense paupers, and who certainly should scorn to receive charity in this form as they would in any other. The public conscience is on this point very much dulled, so that many persons well able to pay medical fees make a boast of the fact that they are treated at the hospital. With the outdoor attendance we have possibly less concern, as those patients are usually under the care of paid medical officers. They do, however, affect us more or less directly, because many of then would otherwise be under treatment by private practitioners. A very cursory examination of hospital reports would show out-patient numbers far in excess of the real needs of any town, and would convince even a sceptic that discrimination on the part of the authorities would result in a sensible diminution of the well-dressed crowds who assemble on out-patient days. As to inpatients, the trouble is greater. In spite of care on the part of the managers, many cases are admitted that could just as well be dealt with in a private hospital or at their own homes, and these are the persons who are most impatient of restraint and most exacting in their demands. Having received all the care and attention they need, they consider that their obligations are quite discharged by a letter of thanks to one of the newspapers, inserted free of cost, or by the donation of a small sum to the general funds of the hospital, not one penny of which, of course, passes into the pockets of the medical profession. In surgical operations the most flagrant examples occur. We must, all of us, have had cases in private practice in which we found to our surprise that our patients, after taking advantage of our advice and the recommendation of a particular operation, have been transferred to a general hospital, where the honorary surgeon was compelled to perform the operation without fee. And in cases of street, machinery, railway or mining accidents, almost the first and only idea that occurs either to the police or to the public is to take the injured man to the hospital. Only the other day one of our local magistrates told the police-constable that he had done quite the correct thing in taking a well-to-do man to the public hospital from the scene of a bicycle accident. Now nothing could be more unfair, in the first place, to the medical profession, and, secondly, to the State and to the charitable public who subscribe funds that the poor shall be provided for in their hour of need. Neither the public nor the hospital authorities in any degree acknowledge or appreciate the value of the services rendered to them by the honorary medical officers. In a hospital of any size an honorary surgeon will do work which at ordinary charges would be valued at from £500 to £600 per annum, and the honorary physician will not be far behind; yet in the annual reports the thanks will be expressed in a single line.

One cannot pass by the question of contract practice, which is at the present moment a very live one amongst us. The friendly societies' lodges, medical institutes, medical benefit societies, and political associations with medical accessories, have completely altered the relations between practitioner and patient within a generation. Meeting a great want in the first place they soon grew away from the ideal. The notion of providing the poorer wage-earners with skilled medical attendance for a moderate fee, paid in the form of a regular premium, was a most excellent one. It has brought comfort into thousands of homes where either the sick must otherwise have been denied medical attendance, or else, having availed themselves of it, the medical practitioner must have received little or no remuneration for his services. Among the poor this co-operative system, sick and well alike bearing their shares of the cost, is almost the only method at present by which efficient treatment can fairly be obtained in time of need. Had the matter remained in this form, little or no objection could have been taken to it; but these societies soon aspired to rise in the social world, and endeavoured to attract into their ranks men of position, influence and wealth. As these men came in, they naturally made demands for greater and greater privileges, and were less and less inclined to be restricted by the—to them—irksome regulations under which the contract attendance was supplied. Want of union among the medical practitioners prevented a definite stand being taken, and hence the encroachments have been steadily increasing the burden of the lodge surgeon, till it is anything but an enjoyable load. Further, the tendency of medical knowledge and literature to increase by leaps and bounds makes it impossible for one small head to carry all that is required to be known, and specialism is the order of the day. Thus it is increasingly difficult for the lodge surgeon to carry out his multifarious duties to the satisfaction of his somewhat exacting patients. Let me remind you that at the time this contract practice was introduced, medical attendance, as then understood, was a comparatively simple thing. The clinical thermometer, sphygmograph, stethoscope, ophthalmoscope, microscope, electricity, urine and blood analyses, brain localisation, and a host of other methods of and aids to diagnosis were unknown, and treatment consisted for the most part in writing a prescription, giving some advice as to diet or external applications, and so on. Surgical operations, as understood to-day, were unknown, and all the details of asepsis, before even an abscess can be opened with safety, were not thought of. These things have come in to make the lodge surgeon earn his slender fees more hardly than ever. Added to this is the growing desire for cheapness, which makes the lodge authorities constantly strive to cut down the pittance, and medical men are frequently invited to tender for appointments, in the hope that the cupidity, or the poverty, of some medical man may lead him to agree to do the work at a somewhat lower rate than his predecessor had received. Of late years the medical profession has been gradually awakening to these encroachments, and efforts have been made to promote unity among its members in order to stem the tide. The lessons learned from trades unionism have been studied with some little success, but this has been resented in many quarters and counter moves made to still further sweat the profession. The latest of these is the Medical Institute, which engages the best medical practitioner it can obtain for a fixed salary, which to the weekly wage-earner appears a princely sum. For the man who enters into this engagement there is no Factories Act or eight-hours principle, nor is there any limit to his work, save the merciful provision of but 24 hours in a day and seven days in a week. In healthy seasons the position is no sinecure, while, at the time of an epidemic, the days are not long enough for the work. In one such institute in Victoria the offer was £600 per annum for attendance upon 1500 families, or £700 up to 2000 families. Those of us who know anything of the requirements of lodge patients will be able to estimate the amount of work, while, as an additional inducement, the surgeon had to attend accouchements and miscarriages at 30s each.

We have still, I think, a good deal to learn in regard to the inviolability of all information conveyed to us by our patients, and we cannot too strongly impress upon our minds the necessity of jealously guarding the concerns of those under our care. In addition to curious neighbours, we are beset by two classes of persons who assume to have the right to extract from us all sorts of medical information, viz., the newspaper reporters and the police. Of these, the former are the more persistent, and their methods are two-fold, for if they fail to obtain the news by flattering our personal vanity, they sometimes succeed by asserting their determination to write a paragraph anyhow. In self-defence the medical man will then give some correct information rather than have a hashed-up description in the daily papers. The police have not yet learned that we are not auxiliary members of the force, and they still resent our refusal to give information in criminal cases. We must constantly remember that we are not amateur detectives, and that frequently our rights as citizens are to be held in abeyance by our honour in refusing to betray confidential information. Exactly what we may say, or when we may say it, does not appear to be clearly laid down in law; but in the witness-box it is a pretty safe rule to refer any doubtful question to the Judge. Should he direct us to answer it, we are probably free from responsibility in obeying his direction. The notable case of Lawson v. Dr. Playfair, in 1899, has opened our eyes to the fact that we may place ourselves in very dangerous positions by giving information to even near relations without the express permission of the patient. And with this difficulty we are constantly faced as between husband and wife, or mother and daughter. A considerable amount of tact is often required to escape from such a predicament.

Our profession is judged adversely by the public in the matter of giving evidence in courts of law. It is notorious that, in almost any case, if two or three medical men appear and speak on behalf of the plaintiff, two or three other equally well qualified men will be found to appear and speak on behalf of the defendant. This is, of course, only another illustration of the fact that there are two sides to every question; but the public look upon it in a different light, and their criticisms are frequently neither kind nor just. In any complex question of health there may be wide divergences of opinion, honestly enough, and without any personal or pecuniary bias. Yet even our Judges sometimes seem to think it necessary to remark upon the conflict of medical evidence, and to quote that poor, mangled misquotation, "Who shall decide when doctors disagree?" You will all be familiar enough with Pope's Moral Essays to know that the poet is here referring to Doctors of Divinity and not of Physic. The word "doctor" was not applied to a member of the medical profession in Pope's time. If you will allow me to make a suggestion it would be that no medical evidence should be called either for plaintiff or defendant, but that the Judge, for the guidance of himself and the jury, should summon a skilled medico-legal expert to examine the case and give an unbiassed opinion upon its actual merits, holding the balance between the two parties.

Within the last year or two we have had to consider and decide upon the position we must take up when we are asked to attend cases already under the care of an unqualified practitioner, or when another practitioner is called in to one of our cases, with or without our knowledge. Our Branch has unanimously decided that its members should on no account take charge of any case which an irregular practitioner is attending until that person shall have been dismissed from the case; and here our way is clear enough. But when a herbalist, or other unqualified man, is introduced to cases already under our care, we are frequently unaware of it till some time has elapsed—probably till the patient has died or has quite recovered. In the case of death we have to take all responsibility, "for not even the herbalist was able to cure it;" while in case of recovery the irregular practice will get all the credit of the cure, and our methods receive another disastrous blow. If we are fortunate enough to discover any interference, our duty is plain, either to demand instant withdrawal of the unqualified man or to withdraw from the case ourselves at once. Should death occur after our severing our connection with the case, we are certainly bound to withhold a medical certificate of the cause of death, for the duty of granting this certificate lies undoubtedly with the State, which allows the unqualified practitioner to flourish openly. It is not for us to say that an inquest should be held, but it is undoubtedly necessary for the police to report such a case to the coroner, who would use his discretion as to what steps he would take before granting a burial certificate.

Much has been said recently concerning *the intrusion of the layman into medical practice*, and we all feel the growing tendency of the age. The wide range of medical science compels us to call in the aid of others to carry out the routine and mechanical parts of our work, leaving us free to direct and control them. Hence we have masseurs, pharmaceutical chemists, electrical and X-ray assistants, nurses, bath attendants, and so on. There would be nothing but praise for this if all these persons were content to remain our assistants; but when they have learned all that we can teach them they have the greatest tendency to fly off and set up as independent practitioners in their own lines, often in bitterest rivalry with, or opposition to, our profession. Hence we have the prescribing chemist, who has copies of all our prescriptions, and selects for patients of his own those he has found out to be the most serviceable, and who sometimes even criticises our prescriptions when he is called upon to dispense them. The masseur frequently plays a lone hand, and has a *clientèle* independent of any or all of the medical men of his district. Not content with massage pure and simple, he will impress the patient with the virtues of some special liniment he will use, which, according to him, are quite unknown to the doctor who sent the case to him—much to the discredit of the doctor. Our electrical and X-ray assistants are already wandering from the fold and setting up as being able to cure cases which cannot be succesfully treated by the ordinary medical practitioner. And they go merrily on, with all kinds of electricity and all kinds of rays—phototherapy, radiotherapy, high-frequency currents, and I know not what besides. Our nurses have hitherto been our most loyal supporters, but even here we see signs of breaking away. We must all know of nurses' homes, where electrical treatment of a kind, Tallerman hot-air treatment, and even X-ray and phototherapy are practised, without any reference to medical advisers. Possibly, of them all, our bath attendants have strayed farthest away from us, and have boldly announced a system of hydrotherapy of their own, of which they affirm that the doctors know little and care less. And the curious thing about this is that, as a rule, the hydropath has attached to his apron-strings some doctor "who believes in the water-cure," and whose advice is called for when any serious symptoms develop themselves during the course of unqualified treatment.

As a profession we should speak with no uncertain voice in reference to the diminishing birth-rate. This phase of our social life threatens our very existence as a nation, and is of greater importance than almost any other that could be discussed by us. We must all, as citizens, have viewed with alarm the steady decrease as shown by the Registrar-General's figures. But the revelation did not come as a surprise to us. For many years we have all been cognisant of the growing disinclination among women to bear children, and among men to support families. Partly, this has been the result of our social conditions, which have educated men and women to require, as necessaries of life, so many things that were formerly regarded as luxuries, and partly, to a selfish desire for ease and comfort. The national ideal seems to be fading from our sky, and instead of it, there is arising a spirit of individualism which desires to avoid stress and strain. Pandering to this idea, comes the apostle of prevention, with his advice as to drugs, appliances and other means for preventing conception, or with the offer of sure, speedy and safe methods of getting rid of the unwelcome guest. It may be that we have but little right or opportunity to interfere professionally with simple prevention, although, from time to time, cases come under our care where ill-health is undoubtedly due to the use of preventives. But with regard to the destruction of the *fœtus in utero*, we ought to have but one reply when our advice or assistance is asked. Looked fairly in the face, it is murder and nothing else. For, left to itself, the fœtus has as good a chance of growing to adult life as anyone else has. We ought to speak boldly in this matter, and disabuse the feminine mind of the fallacy that there is no life in the fœtus till the period of quickening; for this fallacy allows many a conscientious woman to use means, during the earlier months of pregnancy, from which she would shrink in horror if she really believed her child to be alive.

And now I approach, with great diffidence, an aspect of our work which is an important one, and yet is probably the most neglected, that is, psychological medicine. Conscious of the fact that it is a field exploited by the crank and the charlatan, reputable medical men seem afraid to enter it, for fear of being numbered with these outsiders. This shyness has done, and is doing, much injury to the legitimate practice of medicine, for not only do we fail to benefit many cases which ought easily to be cured, but we allow these cases to drift away to the charlatan, under whose care they rapidly improve. Hence the army of hypnotisers, faith-healers, Christian scientists, and similar persons who surround us and achieve great reputations at our expense. These all succeed in benefiting the same class of cases in approximately the same degree. They exercise a salutary influence upon those conditions classed under the name of neuroses, and also upon some other so-called functional diseases, the etiology of which is, to a great extent, a *terra incongnita* to us. But they all fail at exactly the same point, namely, to restore structural deficiencies, surgical injuries and obvious organic changes. Fortunately for the cult, in these latter cases the failure can always be explained away, to the satisfaction of the disciple, as due to a want of faith. Just as a surgeon may, by a little want of knowledge, or of precaution, or of courage, fail to relieve a stiff joint, and the case fall into the hands of the bone-setter, to be rapidly cured by him, so may the physician similarly lose a neurotic case and find presently, to his chagrin, that a rank outsider has completely cured it. I feel that we are greatly to blame for not properly realising the effect of mental impressions upon certain physical conditions, and for not being bold enough to study with earnestness this almost neglected field of medical treatment. For really scientific investigation of these cases, no men are better fitted than are medical practitioners, with their wide training and wider experience, and it will be well for us when we realise this and rescue these unfortunate sufferers from persons who prey on their credulity. In this field of treatment, as in any other, when it is divorced from medical science and elevated into a cult, the most sweeping generalisations are made, and the area of treatment is extended far beyond the bounds of possibilities. Should a little religion or a little superstition be added to this form of treatment, the unfortunate disciples become most difficult to deal with by any process of reasoning. Thus, illnesses which might be easily cut short in their earlier stages develop into fatal maladies before they are submitted to rational treatment, and even death is often allowed to overtake the patient without any attempt at relief, through the obstinate clinging to one of these strange beliefs. I make no apology for introducing this question to you here, because everything that belongs to the art of medicine is worthy of our attention as medical practitioners. And if some of our neurotic cases can be accurately diagnosed and successfully treated by a hypnotic suggestion or the inspiration of a sure and certain hope, this suggestion, or this inspiration, ought to come from men who make the healing art the chief study of their lives, and ought not to be left to the adventurer.

And now the time has come for me to vacate the chair and introduce to you my successor, Dr. T. Wilson, for whom I wish and anticipate a prosperous and happy year. But before I do so, will you allow me a moment in which to express my thanks to the members of the Branch for their loyal support accorded to me during the past year, and further to our indefatigable honorary secretary, Dr. Ed. Champion, who has really done all the hard work, and has assisted largely in making my term of office a very happy one to me.

AURAL DISCHARGES.

By W. N. Robertson, M.B., C.M. (Edin.), President Queensland Branch British Medical Association.

In introducing this subject I have little new material to offer, but it is of such importance that I believe a recapitulation of the many causes of such, and a more exhaustive consideration of the more important of them, should lead to a profitable and interesting discussion. It will simplify matters if we first deal with discharges orginating in the external ear.

Discharges of varying character may be the result of injuries, as abrasion of the canal by scratching with hairpins, etc., the presence of foreign bodies, diving, water in the ear, especially if cerumen be present, instillation of oil and other domestic remedies, eczema, herpes, cerumen, furunculosis, otomycosis, and so on. Blood and cerebro-spinal fluid may, of course, be present in fracture of the base.

One of the more common and painful conditions in the list is furunculosis, and I would ask you to consider it more in detail. Furunculosis or otitis externa circumscripta, as it is called, is the result of infection of a hair follicle by cocci—usually the staphylococcus. The surface of the canal may have been abraded by poking or scratching the ear or by attempts to remove cerumen or foreign bodies, or it may have been infected in the course of an otitis media. A lowered state of vitality is, of course, a contributing factor. Owing to the greater number of follicles present, and its greater liability to injury, the outer cartilaginous part of the canal is the commoner seat of the furuncle. A pimple or boil in the ear is much like a boil anywhere else, except that it is situated in a circumscribed space and is over cartilage, which is notoriously painful when inflamed.

The earliest symptoms are heat and itching, followed by acute pain in the ear, aggravated by eating, yawning, or pressure on the tragus. There may be some swelling in front of the ear with glandular enlargement, and if the posterior wall is affected it may simulate mastoid abscess. The canal is swollen and narrowed, and, usually after three or four days, pointing may be seen, and rupture with discharge of watery looking pus may rapidly follow, should an incision not have been made previously. Discharge of a necrotic core ensues with resolution at the end of a week or ten days. Recurrence is frequent, owing to extension of infection to other follicles.

The condition may be confused with parotid abscess, mastoid abscess, or otitis media. It may be distinguished from parotid abscess by pressure on the parotid, causing pus to flow from the opening; from mastoid abscess by the absence of pain on pressure over the mastoid; and from otitis media by inspection with a good light.

Treatment.—If seen early before the swelling is too great, the inflammatory process may be arrested by packing the ear lightly with wool or gauze soaked in a 12 per cent. solution of carbolic acid in glycerine, with adrenalin; or the bougies recommended by Richards and others may be used. They are composed of various volatile antiseptics and anæsthetics in a basis of gelatine and glycerine. The glycerine is hygroscopic, and promotes the reduction of swelling and congestion. I think I have found the bougies the more useful form of treatment. Careful cleansing of the ear from time to time with peroxide of hydrogen solution is most valuable. Usually, however, one does not see the case till pain and swelling are considerable. Then I consider prompt incision under nitrous oxide gas anæsthesia, with irrigation and gauze packing, or the use of the bougies already mentioned, the best form of treatment. When healing has taken place I advise the instillation of a thin dilute nitrate of mercury ointment in liquid vaseline to prevent recurrence. Acetate of alumina is also a most useful dressing, or the ear may be dried with spirit and aristol or boracic acid insufflated. Internally, I believe yeast is of value, and I believe a more elegant preparation of it is now on the market at home, which I should be glad to try if available. Tonics and change of air are indicated during convalescence.

Coming to the middle ear, the discharges most commonly met with are due to otitis media, acute and chronic.

There are several avenues of infection to the middle ear, the Eustachian tube being the chief. By it travels infection in the eruptive fevers, sore throat, etc. Infection may be carried by the circulation, as in syphilis, or infection may be conveyed through the external canal by injuries and abrasion of the tympanic membrane, or perforations by injuries from without. It is rare, indeed, that the middle ear is primarily infected through the external canal. To make the picture complete it is necessary for us first to look at simple middle ear inflammation, which untreated may or may not become perforative otitis media. An acute catarrhal middle ear inflammation may resolve without going on to suppuration, and may even perforate without becoming purulent, provided a septic infection be not grafted on it through the external canal. The organism in such a case is probably a staphylococcus, or one of the milder forms of diplococci. In a typical otitis media there is an infection of the middle ear through the Eustachian tube by a specific organism, facilitated by catching cold, sore throat, or in scarlet fever, measles, enteric, pneumonia, influenza, diphtheria, etc. The mucous membrane becomes swollen, reddened, and covered with an exudate of serum, mucous, and leucocytes; there may be destruction of the epithelium, with infiltration of the fibres of the tympanic membrane, and if the process is not arrested perforation may ensue.

The earlier symptoms are fulness, throbbing, pulsating and paroxysmal pains in the ear and side of head, frequently rise of temperature, and in children there may be delirium and convulsions. The pains are worse at night. Children incline the head to the affected side, and constantly put the hand to the ear and side of head, though a child who is ill may pull at the ears without any aural condition to cause it to do so. Here I would like to say that I consider no examination of a child complete who is suffering from rise of temperature, pain, etc., without obvious cause, unless a systematic examination of the ears is undertaken. It is surprising how often otitis media occurs as a complication of other febrile conditions, and as it is not always accompanied by earache it is frequently overlooked. Mistakes would be avoided if the ears were examined with mirror and speculum, and if this were regularly done with infants the technique would soon be mastered. Babies suffering from gastro-enteritis are frequent sufferers from otitis media, and it can be readily understood how much this complication, if overlooked, would help to pull them down. In the eruptive fevers the ears should be regularly inspected.

On examination the membrane will be seen to be more or less injected and of a cherry-red colour. The handle of the malleus may be obliterated and the short process seen as a yellow point. The membrane may be covered in patches by exfoliated epithelium or by blebs, and will bulge out generally or in circumscribed areas. In the early stages the deafness may be only slight, but rapidly becomes worse. Bony conduction is usually normal. It may, however be lessened, and is due to a coincident hyperæmia and congestion of the labyrinth.

In mild cases after a few days the pain and disturbance gradully disappear, the mucous membrane is restored to normal, hearing is restored, and practically no damage is done. On the other hand adhesions may take place between the membrane and the promontory, the ossicles may ankylose and partial deafness result, necessitating regular inflation to break down adhesions and supple the joints. In more severe cases perforation occurs more or less rapidly in proportion to the severity of the case. The nature of the discharge varies with the nature of the infection.. In influenza the onset may be so violent that the discharge is chiefly blood and serum. In mild cases the discharge may be almost purely serous unless contaminated after perforation.

Treatment.—When seen early before perforation is imminent and before there is marked bulging of the membrane, the patient should be put to bed and given a sharp aperient. If the throat is affected suitable treatment should be applied, and I am in the habit of ordering a mild alkaline nasal wash or spray like Dobell's solution. A useful form is the alkaline and antiseptic tablet of commerce. The solution should not be syringed or douched up the nose, but sniffed up or sprayed. Antipyrin and phenacetin give relief from pain, and opiates must be given to secure rest. Leeches may be applied in front of the tragus. Warm carbolic acid and glycerine solution should be instilled into the ear or the bougies already mentioned may be used, and a hot water bag applied over the ear. The glycerine absorbs fluid through the membrane, whilst the carbolic acid is anæsthetic and antiseptic. Hot poultices should be avoided, as they tend to encourage perforation.

Gentle inflation with the Politzer bag may be tried in mild cases; it opens the tube and promotes drainage, but in an infective case it may blow secretion into the mastoid antrum and aggravate the mischief. Failing speedy relief through these measures, puncture the membrane under cocain anæsthesia. Cocain does not render the operation painless, but it affords considerable relief. When the pain of the incision has abated a little, the ear should be inflated to drive the contents of the middle ear through the opening. A probe mounted with cotton wool is now used to mop out all the discharge and the canal packed lightly with iodoform gauze, or aristol or boracic acid, insufflated, and an ear dressing applied. This dressing should be repeated as often as the dressing becomes wet with discharge, and regular inflation carried out to keep the wound open and to establish drainage through the Eustachian tube. Irrigation, preferably with a douche, may be used instead of the dry method. A large quantity of weak antiseptic lotion should be used, and the canal packed as before. Should either of these methods be carefully carried out there should be little danger of secondary infection through the canal.

Acute suppurative otitis media is really the sequel to the last condition, and is the consequence of the violence of the attack. The etiology is the same, plus injuries through the external canal, as in a blow with the open hand, or when a wave strikes the ear in bathing. It is also often a sequel to sea-bathing, especially if the meatus is already occupied by a mass of cerumen. The onset is rapid, with fever and acute throbbing pain. Children may be drowsy or delirious, or have an intermittent pulse, or convulsions. If a baby is constantly screaming and leaning against the mother with its head, the ears should be examined at once. The mucous membrane of the middle ear is acutely swollen, the layers of the membrana tympani are infiltrated with pus, and at one point the membrane has given way. On inspection, the canal may be filled with pus, usually muco-pus. On irrigating, it may be impossible to see the perforation, but a point of pus will be seen pulsating through the opening as it is mopped away. According to Politzer, pulsation may be recognised before perforation. The pus may now be aspirated through the perforation with a Siegle's speculum or Delstanche's instrument, or expelled with a Politzer bag, and a warm ear bath of hydrogen peroxide given, and gauze packing or insufflation of antiseptic powder practised.

Perforation should always be anticipated by incision when possible, but frequently the case is not seen till perforation has occurred. The discharge may be removed by syringe or douche, and if the perforation be found too small for free drainage it should be enlarged. Where the discharge is profuse, and the patient not under regular supervision, he should be instructed to change the dressing whenever it becomes wet.

Complications are: Mastoiditis, thrombosis of lateral sinus, and cerebral abscess. Adhesion may take place between the promontory and membrane or ankylosis of the ossicles, also necrosis of the ossicles. Lastly, the condition may become chronic.

Chronic otitis media is the result of an acute attack which has resisted treatment or been neglected.

Frequently after the subsidence of pain and free discharge in an acute attack the patient neglects further treatment, considering the trouble over, and it is only on catching cold with recurrence of free discharge that he presents himself for treatment. Many think it is "only a running ear," and so altogether neglect treatment; especially if the patient is a child the parents think lightly of it. It can readily be understood that in such cases any condition may be found from a simple perforation, with slight discharge, to complete destruction of the membrane and ossicles, with discharge from the mastoid antrum, with polypi or cholesteatoma. There may be one or more perforations, or only a small rim of membrane may remain. Sometimes the lower half of the membrane is gone, and a kidney-shaped aperture is left, with the handle of the malleus projecting into the hilum. Whatever the condition found, chronic middle ear suppuration is always an affection of some gravity on account of possible complications.

The symptoms may be few. There may be a certain impairment of hearing, varying with the extent of the damage. When there is ankylosis of the plate of the stapes, or cicatrisation over the foramen rotundum, loss of hearing may be great, also with polypi or extensive granulations and cholesteatoma, or desquamative otitis. Treatment. It is most important that cessation of discharge should be brought about as speedily as possible.

As the dry method of treatment is unsuitable for use by patients themselves, and as few care to visit the surgeon for each dressing, the wet method is usually employed. The ear is syringed or douched with a warm antiseptic solution, as lysol or boracic acid (borax is also very useful), Politzered, and carefully dried with tampons, warm hydrogen peroxide is instilled, which searches all the corners for pus, dried again, and warm rectified spirit instilled, from 50 per cent. to full strength, and a dressing applied. I think spirit is the best application, especially where there are granulations. It stings a bit at first, but patients soon become used to it. I have tried a multitude of powders and lotions, but have returned to spirit. Polypi must be removed by the snare or curette. I thread the snare with horsehair or fine silk-worm gut, and find them both safe and efficient. Exuberant granulations may be scraped away, or touched with a chromic acid point. Mopping with 15 per cent. chromic acid shrivels them up speedily. Where cholesteatoma is present, considerable difficulty may be experienced in removing it. I know nothing so trying as the attempt to remove cholesteatoma from a fractious child without an anæsthetic. Nothing seems to soften or shrink it. Liquor pancreaticus seem to help a little, but gives pain. If the edge of the mass can be raised, and a stream of water projected behind it, it may be dislodged, but it frequently extends into the attic and antrum, and can only be removed by a complete mastoid. I had a case in a child of eleven recently, where the mastoid antrum was dilated to the size of a large hazel nut. The discharge had lasted some years. She made an excellent recovery, as the cavity was already lined with epithelium. Sometimes the suppuration is confined to the attic or Prussak's space. Careful washing should be done through the opening through Schrapnell's membrane, and it may be necessary to scrape away granulations or decayed bone in that region.

In many cases as the discharge lessens, the aperture gradually closes. The cicatrix looks like crinkled parchment, and is very thin, or it may show calcareous patches in its substance and be thickened and opaque. When the perforation is situated near the margin of the membrane, the epithelium of the external canal may be spread into the middle ear, lining the cavity. In such a case the perforation cannot close. Equally important with local treatment is general treatment with tonics, change of air, etc., and, more important than all, is the treatment of the nose and post-nasal space. In many, I had almost said most, cases the discharge quickly dries up on the removal of adenoids, and freeing the nose. When nasal respiration is freely established, the tendency to catch cold, with its attendant attacks of otitis media, is immensely diminished. Enlarged tonsils should be dealt with, as they help to cause engorgement of the Eustachian tubes and prevent the necessary aëration of the nose and ear.

When discharge has ceased, and especially if a dry perforation remains, it is important to warn patients against the danger of diving and bathing. The regular use of the shower on the head should be forbidden. Alcohol and tobacco should be avoided, and rational living pursued. Should the treatment indicated fail to stop the discharge, operation in the direction of removal of the ossicles or clearing out the mastoid must be undertaken.

In conclusion, I would urge the vital importance of early diagnosis in acute ear conditions. As in every branch of medicine, prevention is better than cure, and much may be done to prevent lamentable damage to the ears and danger to life, by attention to nasal obstruction and hypertrophy of the post-nasal and pharyngeal tonsils. One seldom sees a child that is quite free in its upper respiratory tract, and there is no doubt that the exanthemata are particularly prone to attack the ears of children who have hypertrophies in that region.

(Read before the Queensland Branch of the British Medical Association.)

TWO CASES OF PYÆMIA FOLLOWING CHRONIC PURULENT OTITIS.

By Richard Arthur, M.A., M.D., Assistant Surgeon, Ear and Throat Department, Sydney Hospital.

Two deaths in a month from pyæmia after ear trouble gives one furiously to think, and this especially when one has been collecting for some years a series of successful mastoid cases which, by publication, might win the modest advertisement dear to the heart of every medical man who covets a place in the sun. But sweet, even in the practice of surgery, are the uses of adversity, and from these two blots on the 'scutcheon a lesson may be gained more valuable than that given by the unstimulating monotony of a consistent success. The cases are as follow:—

1. A.H., male, age 24. Seen on 12th October, 1904. Was then complaining of pain in right ear, which had lasted about a week. Purulent discharge from the ear since childhood. The temperature was about 100°; only slight tenderness over the mastoid. There was a good deal of granulation tissue in the tympanum and a little offensive discharge. Treatment: The ear to be syringed several times a day, leeches on the mastoid, and a purgative.

During the next two days the pain became easier, but as the temperature rose higher I urged operation. This was at last consented to, and on the 17th, having removed the patient to a private hospital, I did the radical operation, with the assistance of Drs. Doak and Barnes. There was no pus in the mastoid cells, but the antrum and attic were filled with foul-smelling material. The pain was at once relieved, and the temperature and pulse fell, though not to normal. On the second day patient complained of some abdominal pain, but seemed pretty well. On the third day he suddenly went to pieces, pulse going from 95 to 140, and the abdomen becoming distened. I decided, after a consultation with Dr. Hankins that night, to expose the lateral sinus and drain the abdomen next morning; but when the time came the patient was evidently moribund, and we agreed to leave him alone.

2. J., male, 19. Seen first on October 10, 1904, at Mudgee. Patient had pain in the right ear, which had lasted off and on for some weeks. There was a purulent discharge of many years' standing. Very little mastoid tenderness, and no elevation of temperature. In spite of the warning of the former case, I decided, after a careful consideration of the symptoms, that operation might be postponed, especially as I had no instruments with me. Patient was to be kept in bed and watched, and if his condition became worse he was to come to Sydney at once. I saw him again on November 25th in Mudgee, as his parents refused to allow him to be sent to Sydney. He had had rigors on the 21st and 22nd, and on the 24th developed pneumonia at the left apex. With the assistance of Drs. Lester and Cooke I performed a radical mastoid, and then exposed the lateral sinus for about three-quarters of an inch. Pus was found lying along the sinus, but there was no thrombus, as a syringe plunged into the sinus drew off fluid blood. Relief of pain was, however, the only result, and the patient died next day in an intense septic condition.

I take it that delay was fatal in both these cases. In the first case, had operation been resorted to a day or two sooner and the sinus exposed at the same time that the mastoid was opened, it is probable that there would have been no metastatic extension to the peritoneum. In the second case, had I broached the antrum when I first saw it with any carpenter's tools handy, I am convinced there would have been no further trouble.

These cases raise in my mind the question whether it is ever justifiable to temporise in this condition of an acute inflammation of the middle ear superimposed on a chronic suppuration. The text-books say it is, and I have seen myself a number of cases where pain and a rise of temperature disappeared in a few days, though whether as a *post* or *propter hoc* to syringing and leeches I cannot say.

But with these two cases before me, I am inclined to doubt the wisdom of delay. Surgical opinion is swinging rapidly round to the belief that every case of appendicitis should be operated on straight away; that the total risk is less in removing the diseased appendix than in leaving it *in situ*. Now, I still hold that the risk from a chronic middle ear suppuration is small if the ear is kept clean. I am almost prepared to maintain that it is nearly as dangerous to possess an appendix (so common have affections of that mysterious organ become) as it is to have a discharge from the ear. And as no one, unless reports from America are to be credited, advocates the removal of the healthy appendix, so the ordinary garden otorrhœa may be left to the syringe and time. But when an acute inflammation, however slight, supervenes, it seems to me that there is not a moment to be lost; even as in appendicitis, with symptoms of perforation or involvement of the peritoneum, every hour is valuable.

One has no means of knowing how long the infection will be limited to the middle ear, or when the extension to lateral sinus, meninges, or brain may take place. On the other hand, the radical mastoid operation is a comparatively innocent procedure in skilled hands, barring the menace of facial paralysis, which even the youngest of surgeons may occasionally be confronted with; and surely one life saved would cover a multitude of wry faces.

I think I am prepared to dogmatise—not on the strength of two cases, which would be induction run mad, but from the general considerations of an acute inflammatory process running riot in previously rotten bone and degenerated mucous membrane—and state that an ear, the seat of a chronic otorrhœa, should be operated upon immediately an acute inflammation arises in it. And I would go further and suggest, though with some diffidence, that in every case where the radical mastoid operation is performed it would be advisable at the same time to inspect the lateral sinus. This would add practically nothing to the risk of the operation. We constantly expose the lateral sinus and the dura mater inadvertently when opening the mastoid, and think nothing of it. Thus Heath, in a record of 400 cases of mastoid operations, says he exposed them both in more than half. Instead, then, of resting content with reaching the antrum and attic, and being compelled to explore the lateral sinus a few days later, when symptoms of pyæmia have shown themselves, would it not be well to examine the sinus at the same time, and find out if there is any pus along its sheath ? If nothing were found, at least no harm would have been done, and one would have gained some knowledge as to the future course of events. But I intend to bring forward this matter at the Adelaide Congress, so shall not dwell further on it.

Finally, with regard to operation after there are metastases in various parts, there seems no reason why it should not be persisted in, although the prognosis is of the gravest. Cases are recorded in which there has been recovery after operation, although a septic pneumonia or joint affection has been present. I am not aware of any successful result after involvement of the peritoneum.

I would offer, then, these three principles for consideration and comment :—1. All cases of acute middle ear inflammation superimposed on a chronic otorrhœa should be dealt with surgically *at once*. 2. In all cases where there is the slightest suspicion of involvement of the lateral sinus, or even where there is not, the sinus should be exposed. 3. The presence of metastases in pyæmia arising from the lateral sinus should not be a bar to operation.

THE PATHS OF INFECTION IN LOCALISED SUPPURATION WITHIN THE FEMALE PELVIS.

By John B. Nash, M.L.C., M.D., etc., Sydney.

From a clinical point of view the site of an accumulation of pus within the female pelvis must be of interest to every medical practitioner, whether he be engaged in general or special work. Such accumulations are an every-day cause of acute illness, and their early diagnosis is of paramount importance. Cases which have accumulated in my notebooks present the condition in so many different forms that I have been tempted to write upon it.

In this article there is no consideration given to the general infections connoted by the terms pyæmia and septicæmia, which in their complete manifestations differ entirely from localised suppurations, though at the beginning of the illness there is no line of differentiation indicated by the charts of temperature and pulse rate.

The various effects produced on patients appear to be due to an inherent quality of the infecting organism, which, in working out its destiny in a contest with its host, overcomes the barriers opposed to it by Nature. In no small degree the result depends upon the state of the tissues of the individual attacked, but we have not attained to that accuracy in clinical knowledge which would enable us to say, in one person the result of a contest with the staphylococcus will be a local accumulation of matter, in another the streptococcus will produce a general disease of special virulence. The localised abscesses are the sequel of some lesion of the tissues in or near the pelvis, and are due to the entrance of some infecting material into a nidus suitable for its development, the palpable outcome following in due course.

A table is published at pp. 212 and 213 of Howard Kelly's "Operative Gynæcology," ed. 1900, vol. 2, which relates to cover-glass appearances and culture manifestations of "pus from ovaries and tubes": "Material from 43 cases was examined; pyosalpinx, ovarian abscess, and pelvic abscess removed through the abdominal incision; organisms were found less frequently than in those cases of abscess evacuated per vaginam." The totals are :—

Negative	33 cases
Gonococci	7 „
Colon bacilli	0 „
Mixed infection (staphylococcus albus and aureus streptococcus).. ..	1 „
Undiagnosed	1 „
Contaminated	1 „

The recognition, of the exact site in the pelvis where an accumulation of pus begins, of the transverse planes of the cavity that it occupies, of the direction in which it is most rapidly increasing, and of the tissues that it is displacing, is of great importance. Upon this knowledge depends the operation the surgeon will select for the treatment of the patient.

The following are illustrative cases which have come under my observation :—

Case 1.—Pus at base of broad ligament : Mrs. W., 29 years, multipara. Several miscarriages. After the last miscarriage pain persisted in the hypogastric region and over the back of the sacrum ; the general condition remained unsatisfactory, the pulse varying from 100 to 110 and more per minute, the temperature varying from normal or below this line to 101° or 102° F.; the rises were irregular as to time of the day. The posterior fornix of the vagina was pushed downwards; the fingers in the canal and to the left of the cervix impinged upon an accumulation which suggested by its consistence the presence of fluid. A finger passed into the rectum felt its anterior wall pressed into the lumen of the bowel by a collection of fluid occupying the position between it and the uterine cervix. On bimanual examination a thickened mass was palpable, occupying the base of the left broad ligament and extending behind the uterus. Fluctuation was present. The correct treatment was incision of the accumulation per vaginam. This was done; the opening was enlarged with the fingers and a scissors, the abscess cavity was explored and cleaned out and freely irrigated, a drainage tube was inserted and gauze packed in around it. The after treatment consisted of irrigation and drainage. This case is typical of the class where an infection reaches the cellular tissue at the base of the broad ligament, there sets up a localised inflammatory process which is followed by suppuration, and occupies a site within the pelvis, where it lies as a diagnosable abscess.

Case 2.—Salpingitis and Pus Tubes: Mrs. J., *æt.* 35 years, 2-para. Four days after the second confinement she had a tender abdomen, some distension, severe pain in the right hypochondrium, a pulse of 100 per minute, a temperature as high as 102·4° F., a facies that indicated a serious condition, and a tendency to vomit. During the following three weeks the condition of the abdominal wall did not alter, the signs of some tender areas beneath it persisted, the temperature was erratic, two rigors accompanied the highest points, 102·4° F. reached on the chart; almost daily it was at or well below the normal line, and rose at another hour of the same day to 99°, 100°, or 101°. Meanwhile the pulse countings were from 84 to 104 per minute. The case was typical of infection during the puerperium following the course of the Fallopian tube, causing a peritonitis which at first threatened to become general, but which, under suitable treatment, became localised. The toxin produced was one of those which acts markedly upon the heat-producing mechanism and not upon the muscular tissues or motor functions of the heart. The signs discovered on physical examination were those which accompany a localised inflammation, and at the later portion of the three weeks pointed to accumulations of pus. At the beginning of the fourth week of the illness an incision was made through the abdominal wall. The omentum was adherent to a great extent. Some coils of small bowel in the left side of the pelvis were adherent to a semi-solid mass which occupied the left broad ligament. It took much care to detach the adhering intestinal coils and to separate the distended pus tube at its under surface. The anterior surface of the uterine fundus was adherent to the peritoneum on the vault of the bladder. The right Fallopian tube was distended with pus. Both tubes were removed from their attachments within the pelvis.

Case 3.—Ovarian Abscess: Mrs. A., *æt.* 23 years, unipara; child, 5½ months. Her puerperium was unsatisfactory. She has not been in good health since the confinement. When she came under my care she complained of continued bad health and said that she was unable to get strong, that she had severe pain in the left half of her abdomen, which caused her little inconvenience when recumbent, but which became so severe when she walked that she was unable to continue doing so. Her pulse-beats were nearly regular, varying in number from 85 to 100 per minute. The temperature fluctuated from 97·5° to 100° F. A distinct hard mass was felt in the left side of the pelvis; firm pressure upon it caused pain. On further examination it was found to be situated at the upper part of the left cardinal ligament, and to occupy lateral space from the uterus to the pelvic brim. Its closeness to the uterine fundus raised a mental question: Is it attached thereto? The interior of the uterus measured 3½ inches. A careful investigation under an anæsthetic resulted in the opinion that the tumour was not connected with the uterus. When the peritoneum was exposed it was pushed forwards by something within it. An incision of the serous membrane revealed a tumour bulging up from the pelvis. It was seen to be a pus sac, projecting from the posterior surface of the left broad ligament at a level below the Fallopian tube, to be not connected with this tube, and to extend inwards along the mesosalpinx to the posterior surface of the body of the uterus, and outwards to the brim of the true pelvis. The uterus was pushed to the right wall of the pelvis. The sac enclosing the pus had colour and irregularity of its surface, the appearance which is characteristic of a matured ovary. The Fallopian tube was not involved. The mass was detached from the broad ligament and removed from the pelvis.

Case 4.—Pus in the true pelvis following operation of the left round ligament: Mrs. L., unipara, *æt.* 24 years. An adipose subject. When searching for the round ligament the extra peritoneal layer of fat to the inner side of and just below the external inguinal ring was opened into. In this case it was probably the outer edge of the cave of Retzius. When the wound was being closed it was with some trouble that the deepest layer of suture satisfactorily approximated the sides of the cave in the areolar tissue. The wound healed by first intention, yet the chart of the temperature and pulse rate numbers indicated the presence of an accumulation of pus. During the week following the operation there was much trouble in getting the bowels to act; the abdominal wall became rigid and distended, and there was evidently an accumulation of gas in the colon, if not in the small intestines and stomach. From the signs and symptoms, post-operative peritonitis might have been suspected. A physical examination revealed an accumulation of pus pressing down the upper part of the posterior wall of the vagina, and lying between this and the second part of the rectum. This accumulation, taking origin from an infection in the deep part of the incision, had rapidly spread in the extra-peritoneal fat, between the peritoneum and the pelvic fascia, down to the pelvic floor; here it pressed upon the second part of the rectum, and caused the phenomena of obstruction of the bowel. When an incision was made through the vaginal roof the pus was enabled to escape, and the urgent signs and symptoms disappeared.

The points culled from these four cases illustrate various paths along which infective material travels, this possesses the power of making the living tissues produce pus in such large quantities that as a result an abscess is formed. The cases would have been much more complete had the infecting organisms been searched for. The first case is a type of probably the most common variety. In it the infecting organism settled somewhere on the lower segment of the uterus and passed directly through its wall. Here it found a suitable nidus, and being in sufficient strength it rapidly increased and overcame the powers of resistance of the tissues; it killed the corpuscles, and caused fluid to be poured out. When these were palpable they became what is designated an abscess.

The second case is illustrative of that type which the late Mr. Lawson Tait did so much to make clear to the medical mind, and in relation to which he implicated the gonorrhœal virus as the most frequent cause. In this special case there is ample reason from the history to suspect that the gonococcus might have been the infecting organism. The Fallopian tube contained pus, and the adhesions formed involved so much of the bowel wall, and especially of the rectum, that there was a likelihood of a fæcal fistula being a sequel of the operation.

The third case represents a class far from common. In the 43 cases referred to previously, two were named "ovarian abscess." Kelly (vol. 2, p. 213) reads: "The ovary is usually involved in the surrounding inflammatory condition, and only rarely is the seat of an ovarian abscess. Infection of the ovary, when it does occur, probably takes place through a ruptured Graafian follicle." There were no adhesions.

The fourth case is *sui generis*. It is comparable to formations of pus in other parts of the body, where an infection is sufficiently virulent to produce intense local reaction, and by pressure following from this to interfere with the functions of a neighbouring organ. Some doubt arose in this case during the week in which the pus was forming as to the patient being the subject of enteric fever. Dr. Dick, of Newcastle, was good enough to make a Widal's test. He reported a positive reaction. The patient is said to have had typhoid fever in childhood and a second attack seven years ago. Eleven days after the first Widal test, a period subsequent to incision of the abscess, the blood was again tested, and a positive reaction was reported. "A very prompt reaction." The progress of the case was not in accord with the enteric fever type of illness.

The factors, vital and anatomical, concerned in the invasion of the corpus humanum by organisms in these cases are as follow:—1. The implanting and movements of a living organism. 2. The vital properties of this organism. 3. The vital properties of the cells and fluids of the body invaded. 4. The lymph channels in their ultimate divisions where they surround the fixed cells of muscle and of other tissues. 5. The relation between the diameter of the ultimate lymph spaces and the size of the corpuscles and of the cocci or bacteria which traverse them. The minuteness of the organisms as compared with the blood corpuscles is remarkable.

At present it is not apparent why in one case organisms should pass directly through a muscle and in another pass along a tube through only part of its length, and in a third wander along the whole length of this tube and settle on an organ outside its ostium, and in it exert their power for doing harm, and in a fourth produce their effects at the point where they were first placed.

The discovery at some point by the invading organisms of a nutrient medium suitable to their immediate necessities must play an important part in their growth and subsequent effects. When they have reached a lymph vessel or a gland their line of action lies in the continuity of these channels.

The cases here considered are examples of pathological occurrences set up within the pelvis at earliest stages of bacterial or coccal invasion. The site of the palpable entity which is called an abscess is situate where the living invading organisms are first seriously challenged by the bodily cells and fluids, which are charged with the function of barring the way to the further progress of the enemy. Were it not for this local contest, which brings about diagnosable conditions, our efforts to aid individuals in the battle of life would be feeble. The results of the investigations of recent years hold out hope that in the not distant future the scope of our therapeutical power may be so much increased that many of these cases will be successfully treated without operation.

The four patients whose cases are referred to in this paper were placed under my care at various times by Dr. A. W. Nash, Dr. Doyle and Dr. Cox, of Newcastle, and by Dr. Arthur, of Mosman.

PATHOLOGY OF FIBROIDS OF UTERUS.

By C. F. Harkin, M.B., Ch.B. (Dub.), Chiltern, Vic.

THE existence of these growths had long been known, though they were from time to time confounded with carcinoma. Their identity appears to have first been established by William Hunter, who described them under the name of "fleshy tubercle," and their history was further elucidated by Sir C. Clarke in a paper published in 1814. The fundus of the uterus is the commonest site of these growths, though no part of that organ or its adrexa is exempt from involvement. They have been observed in the cervix, the round ligaments, the ovarian ligaments, the utero-sacral ligaments, the mesometrium, the ovary, and in the rudimentary horn of a unicorn uterus—in short, in any part where unstriped muscular fibre exists.

The classification of fibroids of the body of the uterus into (1) submucous, (2) intramural, and (3) subperitoneal, and those of the cervix into (1) intra-cervical and (2) subperitoneal is rather of clinical than pathological importance.

These tumours may be single or multiple. One large single growth may completely fill the pelvis, while a hundred or more small ones may not overcrowd the same space. Further, a fibroid, though apparently single, may contain smaller tumours within it, each with its own capsule and enjoying an independent existence. These have been styled "conglomerate fibroids."

What have been called latent fibroids have a special interest. They are seen as small white spots on the cut surfaces of uteri of women between 25 and 50 years of age, and are similar in structure to ordinary fibroids, and, like them, are prone to undergo calcification. Their existence may never be suspected during life, or they may grow into large proportions. Bland Sutton says of them: "Latent fibroids have an important practical bearing; it is not an uncommon experience for an operator to dilate the uterine canal and abstract two or more submucous fibroids. However carefully the procedure may be conducted, and however thoroughly the walls of the cavity may be examined for minute fibroids, no honest assurance can be given to the patient that other fibroids will not grow."

The age at which fibroids appear is of some interest. Bland Sutton expresses the facts tersely as follows:—"The menstrual epoch of a woman's life may be divided into three periods in relation to pregnancy and fibroids, thus: (1) From 15 to 25, in which, assuming the environment to be favourable, a woman is infinitely more liable to conceive than to grow a fibroid. (2) From 25 to 35; during this period her liability to pregnancy is greater than in the preceding period, but her liability to fibroids is also greater. 3. From 35 to 45; in this the liability to conception is greatly diminished, but to fibroids is immensely increased." This quotation expresses the average rule regarding the incidence of these tumours, though fibroids have been removed from girls of 18 (Scharlieb).

In colour and consistence, fibroids may be very varied. They are, as a rule, of a light yellow colour, but may change under certain conditions of vascularisation to a deep mahogany hue, or they may be parti-coloured, owing to apoplectic or mucoid changes. Their hardness or otherwise is usually in the same way dependent on greater or lesser abundance of blood or lymphatic vessels, or on degenerative or other changes.

The disturbances produced in the menstrual function and the risks which are added to pregnancy by the presence of fibroids seem to form so large a part in the clinical history that I am leaving them out of consideration. It is generally agreed that myomata become more vascular during menstruation, and that they enlarge with pregnancy, and undergo retrogressive changes afterwards.

The harder fibroids show a disposition to undergo calcification, and where they are subserous or pedunculated, to become separated from their attachments and remain free in the abdominal cavity, constituting what was formerly styled "uterine calculus."

The life of the patient is frequently threatened by sepsis occurring in a fibromyoma. The growth becomes a soft, stinking mass, and may kill by causing septicæmia. It is easily to be conceived that a submucous fibroid can become septic, or that a subserous one may reach a similar condition by adhesion to the bowel; how an intramural fibroid becomes so is not so clearly understood.

Fibroids may become gangrenous and cause septicæmia, or they may undergo colloid or myomatous degeneration, forming what were called fibro-cystic tumours. In these very often nothing of the tumour is left except the capsule. That these were fibroids is proved by the frequent presence of softening in otherwise hard tumours.

The soft fibroid is in some respects different from its hard co-agent. It has a great tendency to impair the general health by causing a profound anæmia, even though there be no great disposition to hæmorrhage. Further, it possesses a certain local malignancy or a tendency to return after removal. This naturally enough suggests a sarcomatous change, and when the well-known difficulty is remembered of differentiating a spindle cell sarcoma from a fibroid, one's mind is left in doubt.

As is well known, fibroids cause all kinds of uterine displacements, including inversion, and the subperitoneal varieties, Virchow says, by dragging the fundus upwards, may not only draw out the cervix to make it resemble the urethra, but may absolutely cause the spontaneous separation of the neck from the body of the uterus. They may cause considerable thickening of the wall of the womb, or, on the contrary, where several are present, may thin out that organ so as to earn for it the title of membranous.

In regard to causation, not much is known. By many they are regarded as congenital, having originated from latent growths which are often spoken of as seedling fibroids. Efforts have been made to connect them with the epineurium of the nerves, but not with any great measure of success. Bland Sutton is convinced that they owe their origin to the minute uterine arteries. It is significant in this direction that they undergo calcareous degenerations, as arteries are wont to do; but it needs to be explained why the uterine vessels show such a preponderating influence to the development of these growths.

Thomas points out that race has much to do with the development of fibroid tumours, and that the African race is peculiarly liable to them, but he gives no figures to support this statement.

Histologically, fibroids consist of concentrically arranged laminæ of smooth, nonstricated muscular fibres. Many of these will appear arranged parallelwise, while close by numerous nuclei will show where muscular bundles have been cut across, giving the appearance of a whorl-like arrangement. According to the degree of hardness of the tumour, white fibrous tissue will show itself between the muscular bundles; outside all is a strong capsule of white fibrous tissue. This description applies to single tumours; where a conglomerate growth occurs, the bands of muscular fibres outside the nodules will pursue different directions. Bands of fibrous tissue usually follow the blood-vessels into these and form a sort of supporting framework.

(Read before the Border Medical Association.)

THE MEDICAL ASPECT OF THE NEW SOUTH WALES EDUCATIONAL COMMISSIONERS' REPORT.

By W. F. Litchfield, M.B. (Syd.), Hon. Assistant Physician, Royal Alexandra Hospital for Sick Children, Sydney.

In their report the Educational Commissioners have recommended some radical alterations in the methods employed in the public school system of New South Wales. Some of these are of interest from a medical point of view. The chief recommendations of a non-medical character are: the more thorough training of teachers; the abolition of the pupil teacher system; the establishment of the kindergarten; improvements in the school curriculum; improvements in the school equipments; an alteration in the methods of inspection; greater attention to the practical efficiency of education. Those having a medical bearing are: the appointment of school physicians; improved hygienic arrangements as to the school buildings and the school furniture; greater attention to hygiene in relation to the school pupil; the establishment of schools for the feeble-minded; instruction by the oral method in schools for the deaf and dumb.

I propose in the following to give an epitome of the Commissioners' recommendations and observations, and then to offer such comment as occurs to me.

School Physicians.—A properly qualified physician and surgeon who has specialised in school hygiene should be permanently attached to the Department of Public Instruction. Every school should have a school physician officially associated with it. The school physician should collect statistical information, as well as advise on health matters.

The School Buildings.—The school playgrounds should be on a liberal scale, not less than 85 square feet for each child. The school should consist of a number of single class-rooms, as these allow of better lighting and a closer attention to work than the long schoolrooms. The school building should preferably consist of a long row of schoolrooms with wings containing a single classroom at either end, and perhaps a third one in the centre. The front of the building, *i.e.*, the side from which the school is lighted, should in this country face somewhere between east and north. The light should come from the left of the pupil, the windows being carried close up to the ceiling. If more light is required, it may come from the rear. In this case the windows should be small and high up, so as not to make a glare in the teachers' eyes. Pale green and pale grey are the best colours for the walls. The floor space in this country should be 16 square feet per pupil, *i.e.*, double what is required by the New South Wales regulations. The air space should be 200 cubic feet for each child, again double that stipulated for in our schools. In the colder parts of the State heating appliances are necessary. These should be specially constructed ventilating stoves, carrying a water vessel to keep the air in the room moist. Open fires and cast-iron heating stoves are bad. The lavatory and latrine arrangements in the State schools may be advantageously improved.

The School Furniture.—The seats and desks in use in the New South Wales schools are faulty, from a hygienic point of view. Bad seating in schools is likely to result in myopia, lateral curvature of the spine, and an imperfect chest development. The desk seat should be of such a height that while the feet rest flat on the floor, the leg forms a right angle with the thigh. If the seat be too high or too low the child will move into faulty positions, in the one case to avoid pressure on the popliteal vessels and nerves, and in the other to avoid pressure on the abdomen. The breadth of the seat should be two-thirds the length of the thigh. The seat should incline slightly backwards; it should have rounded edges, and should preferably be convex towards the front and concave towards the back. The seats should have a back. The best form of back is that known as the dorsal back. This should reach to the spine of the scapula, but not higher. It should incline backwards, and present a forward convexity in its lower part to follow the lumbar curve. With regard to the school desk, the length of table allotted to each child should be double the length from the elbow to the tips of the extended fingers. For children this is about 26 inches. The slope of the table should be about 15° from the horizontal. Such a slope calls for a minimum of accommodative change while reading, and is found to be satisfactory for both writing and reading. The height relation between the seats and table is important. The "difference" should be the distance from the ischia to the elbow when the humerus is hanging vertically. This means that when the palm is laid flat on the table with the humerus vertical, then the forearm will be horizontal. The distance relation between the seat and the table must be attended to. A plummet from the near edge of the table may fall on the seat, may be coincident with the edge of the seat, or may fall in the front of the seat. In the first case the " distance " is said to be negative, in the second zero, and in the third positive. The " distance " should be slightly negative, as the other positions entail forward sitting, which is a very faulty attitude. Seated in this way, it is claimed that the possibility of fatigue to the eye muscles or body muscles is reduced to a minimum, while there is no tendency to abnormal curving of the spine. Slates are unhygienic, and should be abolished in favour of paper.

Hygiene in Relation to the School Pupil.—Defects of vision are common. The sight of all school children should be systematically tested by the school physician. Errors of refraction must be corrected by proper glasses. For feeble vision, not due to errors of refraction, the only remedy is to bring the child nearer the blackboard. Statistics show that school life tends to the increase of myopia, but not of other errors of refraction. Defects of hearing are more common than is generally supposed. When possible the cause of the impairment should be removed, otherwise the child must be brought nearer to the teacher. Lateral curvature of the spine is common on the Continent of Europe, and, like myopia, is increased by school life. Kocher says that " scoliosis is a school disease." The predisposing causes are heredity, anæmia, muscular weakness, too rapid growth and rachitis. The prophylaxis includes attention to the general health, avoiding fatigue, proper seating, and a correct position in writing. With regard to treatment, proper exercises will do much to remedy the defect. Anæmia is common in school children, and is increased by school life. Good hygienic arrangements are necessary to combat it. Dental diseases often handicap the pupils, and should be attended to. Infectious and parasitic diseases must be dealt with according to public health maxims. Habits of cleanliness should be instilled into the children. Physical and mental fatigue is an important phenomenon in school life, and teachers should be instructed as to its manifestations. It is an evidence of over-pressure of school work. The position in writing is considered important. The copy-book or paper should be exactly in front of the child, and its lower edge should be parallel with the edge of the desk. This is called the median upright position, and naturally results in vertical writing. In the early years of life this method should be adopted. Sloped writing necessitates the paper being placed in the lateral position, *i.e.*, to the right of the body, or else in the rotation of the paper to the left. In either of these positions instinctively the head is bent to bring the vision line at right angles to the down strokes. At the same time there is lateral deviation of the spinal column. Fatigue, owing to the strained position of the muscles, soon comes on, and the head droops nearer to the paper. Thus we have all the elements for the production of myopia and curvature of the spine. The home lessons should be carefully adjusted to the capacities and circumstances of the child.

Schools for the Feeble-minded.—Special schools for the feeble-minded should be established. About 1 per cent. of children are so far mentally deficient as to require special teaching. The transfer to the special school should rarely be before the age of eight years, since under the stimuli of the ordinary primary school normal mental growth may re-establish itself. The classes should be small, from six to ten pupils in each class, and the teachers should have special qualifications. Children should be kept in the special schools until they have passed the critical age of youth. Further, a complete record should be kept of the child's history for future reference. It is not desirable that hopeless idiots, morally perverse children, or epileptics should attend these schools. Lastly, a careful distinction should be drawn between the mentally feeble and children that are merely backward or late in mental development.

Schools for the Deaf and Dumb.—In these, lip reading and articulation should be taught. Instruction should then be given by the oral method.

Comment.—The object of our compulsory system of education, I take it, is to give every child in the State a full opportunity to acquire such a preliminary education as will make him a more competent individual and a better citizen than he otherwise would be. It is apparent, however, that if a child is suffering from some physical defect, such as that of sight or hearing, or if the schools are such as to produce ill-health, that the child does not get a full opportunity of so becoming. Hence, in any modern educational system, the medical man must find a place. The appointment of school physicians, as recommended, is not only advisable but is necessary if a number of children are not to be severely handicapped. The suggestion that statistical records relating to school hygiene be kept is a good one. While we should not be above going to foreign lands for information, it has to be remembered that our conditions differ in some important respects from those of other countries. Therefore, it would be well if we had some data of our own on which to form conclusions. The recommendations as to the school buildings and the school furniture appear to me to be sound. The only thing is that in the present impoverished condition of the State exchequer one does not see how they are going to be carried out. Nevertheless, it is just as well to keep the ideal in mind with the view to future action. The observation that myopia and lateral curvature of the spine are increased by school life is an important one. I should, however, judge that lateral curvature of the spine is not such an important element in this country as it is in Europe. Twenty-five to twenty-nine per cent. of school children are said to suffer from scoliosis in various towns in Europe. Arguing from hospital out-patient experience, I should say that nothing like that proportion exists in Sydney. And this I believe, for the reason that rickets in its more severe results is rare in these climes. There are no statistics showing the frequency of eye defects among school children in New South Wales; but as a parallelism has been established between lateral curvature of the spine and myopia in other lands, it is possible that the latter is also less common here. But to properly consider the matter we need some local statistics. Defects of hearing are very common among our children. The adenoid disease plays a large part in bringing this about. Judging, however, by the number of adenoid operations performed every year in Sydney, our surgeons are making a praiseworthy effort to diminish troubles arising from that source. In the *British Medical Journal*, November 1st, 1902, a leading article discusses "Defective Hearing in School Children." The following results are referred to:—Mr. Arthur Cheatle examined 1000 school children between the age of 3 and 16 years in the Hanwell district school. The test employed was that of hearing and replying to whispered questions at a distance of 18 feet. The ears were normal in only 432 of the children, middle ear was afflicted in 518, the internal in 1, the external in 49. In 18 there were actually foreign bodies in the ear; 166 had deafness associated with adenoids and enlarged tonsils. Dr. Permewan examined 203 children in one of the industrial schools under the control of the Liverpool School Board. He took the children according to their mental condition as "good," "fair," and "bad" scholars, and then ascertained their average hearing power in each of these classes, so as to come to an estimate as to how far defective intellectual capacity was accompanied by or dependent on imperfection of hearing power. The average mean hearing distance in very backward children was only half the normal, in the "fair" little more than three-quarters, and in the good more than five-sixths. Other instructive figures are given; but enough has been said to show that the matter of defective hearing in school children demands earnest attention. All medical men will agree that over-pressure of school work is to be avoided, and also that there is a necessity for the curtailment of home lessons in the schools of this State.

The report has dealt ably with the subject of the education of the feeble-minded, but mention might have been made of the necessity of some after-care of these children. Dr. Eichholz (*B.M.J.*, Sept. 6th, 1902) discusses fully "The Treatment of Feeble-minded Children." He urges that a great deal can be done by way of education for these children, but that the education is worse than useless unless there is some provision made to care for them after they leave the special schools. In Birmingham an after-care committee has been formed, working in connection with the School Board, to watch over the future of these weaklings. The establishment of self-supporting colonies has also been recommended.

That the oral method of instruction should be adopted for the deaf and dumb is now generally recognised. I understand that this is the method employed at the deaf and dumb asylums in Sydney.

In conclusion, I would like to say a word of praise in favour of the report. It appears to me to be an able and valuable document in all respects. It will well repay a close study of it by anyone interested in the subject of education.

THE ACETOZONE TREATMENT OF TYPHOID FEVER.

By Rees F. Llewellyn, M.B. (Syd.), Braidwood, N.S.W.

During the summer and autumn months of 1903-4, 18 cases of typhoid fever under my care were treated with solution of acetozone, no deaths resulting. Nine of these cases were mild, so that their satisfactory features could not with certainty be attributed to any drug treatment. The remaining nine, however, were of a distinctly severe type, one being in a typhoid state, and the rest distinguished by marked distress and by temperatures of 103° to 105° for from three to ten days before treatment with acetozone was commenced. Rose spots were in evidence in every case. Detailed notes were, unfortunately, not procurable in some instances, but the following, chiefly general, observations will, I hope, be found of value.

Thirty grains of acetozone dissolved in three or four pints of water—according to the age and condition of the patient—were given every 24 hours in doses varying from a wineglassful to half a tumblerful. Lemon juice was added to each dose before administration. In all cases except one a steady fall of temperature had set in by the fourth day, and in two it began about the twelfth hour; usually it came in 36 to 48 hours. The decline in a few instances was an uninterrupted one of about 1° daily till the normal was reached, when there was no further rise, convalescence being established. But generally after a steady fall of 2° to 3° came a period of morning remissions lasting from one to four days, followed by a period of intermission lasting from four to eight days. All patients but one were convalescent on or before the fourteenth day. In the exception the temperature remained at 103° to 104° for seven days, and convalescence was not established till the twenty-first day. During this time the patient felt almost well, being free from headache, diarrhœa, tympanites, or any other distressing symptoms, the only indication of the severity of the attack being the temperature. Possibly in this patient the intestinal lesions were of minor severity, the attack being rather of a septicæmic type. The fact that the tongue was abnormally clean and beefy throughout may perhaps lend some support to this idea. The diagnosis in this case was beyond question. The stools were absolutely typical, rose spots were numerous, the spleen enlarged, and the right iliac region tender.

That there is a direct causal relationship between the treatment and the fall of temperature was supported by my experience in the case of F.S., a boy aged 10 years. His temperature at the inception of treatment was 103·5°. In two days a fall set in, and in a week the period of intermission began. Two or three days later our supply of acetozone ran out, and a mixture containing salol, hydrochloric acid and cinchona was given. In 24 hours the temperature had risen to 103°, and remained there without remission for two days. I was then able to re-establish the acetozone treatment. In 18 hours the fever began to subside, and the normal was reached on the fifth morning.

An improvement in the general condition of the patients was always noticeable in less than 24 hours—sometimes as early as eight hours—and before there was any sign of the fall of temperature. (This I take to be due simply to dilution of the toxins in the body by the large quantity of water ingested, as intestinal antisepsis could hardly be responsible for a general bodily effect manifested in so short a time.)

One of the most remarkable features of the series was the almost complete absence of distress after the first day or two. Several cases in the remittent stage, with high evening temperatures, craved for food like convalescents, or wished to get up.

Always within three or four days the fœtor almost entirely disappeared from the stools, and in no case did severe diarrhœa supervene after the inception of the treatment—two features highly appreciated by the nurses, whose work is thereby diminished by half. Sometimes acetozone seemed to cause a slight tendency to constipation, but this was easily corrected by 15 to 20 grains of phosphate of sodium thrice daily.

Marked diuresis was generally noticeable in a few hours. Tympanites was quickly relieved, and unless present when treatment was begun, none appeared throughout the illness. No hæmorrhage from the bowel occurred in any of the cases. In no instance did the tongue crack; on the contrary, it generally remained moist and unusually free from coating.

One difficulty met with at first was due to the great bulk of the solution. Most of the patients found it impossible to take large quantities of liquid nourishment in addition. Dissolving the 30 grains of acetozone in less than three pints of water caused irritation of the stomach, and patients who took less than 30 grains in 24 hours did not progress so well. The difficulty was, however, overcome by giving a maximum of two pints of milk—sometimes peptonised—every 24 hours, and supplementing it with a tablespoonful of strong raw beef juice every two hours. Liquid peptonoids were also given in some cases. On this diet some of the patients actually gained weight and strength as the illness progressed. The patient who was in low delirium was given peptonised enemata and brandy per rectum, and only acetozone by the mouth for some days. He was conscious in five days, and convalescent in 14 days.

In a few cases the drug appeared to excite vomiting at first. This either was overcome on the administration being persisted in, or did not return after stoppage by a single dose of one-eighth of a grain of morphine injected under the skin of the epigastrium. For high fever, before the fall of temperature commenced, baths were given by slipping waterproof sheeting under the patient, letting the spring mattress sag down a little and pouring tepid water in. This was soaked up with sponges every few minutes, as it warmed, and fresh water was added. In the two cases in which this method was used the temperature had usually fallen about 2½° in 25 minutes.

Apparently the acetozone should be continued during the first three or four days of convalescence. In the only two instances of this series in which relapses occurred the drug had been discontinued on the first day. The relapses were, however, quite trivial.

From observations of these cases I was led to believe that in acetozone we have an agent which in typhoid fever patients brought in before muttering delirium supervenes, and in the absence of early dangerous complications, may be depended upon to reduce the death rate almost to nil.

It is, however, obvious that this drug has a powerful ally in the water with which it must be given, which largely dilutes the toxins in the body. Treatment of a large series of cases by copious draughts of cold water should be interesting, as furnishing a basis on which to assess the actual value of acetozone.

REVIEWS AND NOTICES OF BOOKS.

THE ESSENTIALS OF THE DISEASES OF CHILDREN. By William M. Powell, M.D. Third edition; thoroughly revised by Alfred Hand, jun., M.D., Dispensary Physician and Pathologist to the Children's Hospital, Philadelphia. Philadelphia and London: W. B. Saunders. Melbourne: Jas. Little. Price, 4s.

This is one of Saunders' Question Compends. It is really a compilation of the medical diseases of children, arranged in the form of questions and answers, with special attention to symptomatology and treatment. Some readers will no doubt find a medical catechism to their taste, but it may reasonably be questioned whether such is an improvement on older methods. If any alteration is needed in the present methods of teaching it is in the direction of ensuring greater attention to the correlation of the phenomena of morbid processes. The arrangement of questions and answers as seen in this book has a tendency to isolate the facts of medicine. W.F.L.

EXAMINATION OF THE URINE. By G. A. de Santos Saxe, M.D., Pathologist to the Columbus Hospital, New York City. Philadelphia, New York and London: W. B. Saunders & Co. 1904. Melbourne: James Lttle. Price, 4s.

This can be recommended as a good book. It bears ample evidence of being the work of an experienced practical man. The methods given are explained fully and clearly, and the author expresses his opinion of the relative value of each test for the special purpose to which it is applied. A special point is made of the clinical significance expressed by the results of the various tests, and the author's remarks are sound and judicious, and should be helpful to readers. Dr. Saxe thinks more highly of the efficiency and value of the pocket spectroscope than the reviewer, after many trials, has ever been able to persuade himself. The purinometer is described as the invention of Camerer, but the credit should be given to Walker Hall, though the reagents used constitute a modification of Camerer's method. To speak of "ciliated pus cells," as on p. 263 and p. 276, is a misuse of terms which must be condemned. They should be called "epithelial cells," as they really are. C.E.C.

LIGHT ENERGY: Its Physics, Physiological Action, and Therapeutic Applications. By Margaret A. Cleaves, M.D. London: Rebman, Ltd. New York: Rebman Company. 1904. 1 vol., royal 8vo., pp. 850, with frontispiece in colours, and 55 illustrations. Price, cloth £1 1s, half leather £1 5s.

In the production of this mammoth work the authoress set herself a stupendous task, and has emerged triumphantly, a reward well merited as the result of very laborious research extending over a period of eleven years, and a careful compilation of all details appertaining to the study of light energy. The work covers the whole field of literature, and its pages are devoted to a practical consideration of the physics, physiological action, and therapeutic effect of light energy from both natural and artificial sources. Vacuum tube discharges and radio-active substances are also considered from the physical, physiological, and therapeutic points of view. The Röntgen ray has not been considered, although properly belonging to a consideration of light energy, for the reason stated, that the subject has been exhaustively covered by others. The Röntgen ray is, therefore, referred to only incidentally in its relation to light and radio-active substances, in order to establish as clearly as possible the indication for the one or the other. The methods employed by the authoress of utilising light energies with results have been given, and the experiences of others as well. Every opinion formulated by other investigators has been carefully analysed, and the conclusions drawn therefrom submitted to vigorous criticism, especially from the physical side, before giving them place in these pages. Especial care has been taken to exclude any evidence not based upon sound fundamental physical laws. It matters not what form of energy is expended within the tissues, if the fundamental physical laws of that energy are known, and its physiological action, the therapeutic application becomes a very simple matter, involving no other principles save those fundamental to the physician. Light, as a therapeutic measure, as well as a factor in hygiene and sanitation, is not only of importance to-day, but always will be. In summarising the effects of light energy on bacteria, the authoress concludes that:—1. Light energy is not only a bactericidal agent of considerable power, but (2) the action is due to the more intensely chemical frequencies—blue, indigo, violet, and ultra-violet; while (3) there is no bacterial species which can resist the power of light if the light be intense enough, sufficiently concentrated and exposed for a sufficient length of time. From the chemical point of view, the bactericidal power of light energy is a phenomenon of oxidation. For its successful action the presence of oxygen is necessary. The following is a brief summary of the contents of this work:—A preliminary survey of the various theories of light energy prefaces a study of its manifestations. The various forms of radiations are referred to, such as radiant heat, brush discharges in vacuo, visible light, utra-violet rays, N rays, X rays, Cathode rays, Alpha Beta and Gamma rays. The next chapter fully summarises all that is known of the physics of light energy and radiant heat; the peculiarities that individualise sunlight, electric arc light, incandescent light, mercury vapour light, spark and vacuum tube discharges. Chapters 3, 4, and 5 deal with the action of light energy upon elementary forms of life, vegetable organisms, and bacteria. Then follows a chapter on the action of light energy upon the higher organisms. Chapter 7 describes the physical effects and biological action of light energy upon the skin, circulation, nervous system, and metabolism. Chapter 8 is devoted to the general details of technique and therapeutic indications of sun-baths. Electric arc baths are next described; the arrangements of light mechanisms, methods of use and therapeutic indications, and the effects of light upon tuberculosis, bronchitis, asthma, anæmia, neurasthenia, locomotor ataxia, and other nervous disorders are reviewed. Incandescent light baths occupy the next chapter, and their uses in such cases as obesity, gout, and rheumatism discussed. Then follows a description of the concentrated visible chemical frequencies of the solar spectrum upon certain infective disorders, such as malignant pustule, diphtheria, pneumonia, phthisis, pulmonalis and lupus vulgaris; the action of the concentrated energy of the electric arc upon various forms of neuralgia, glandular enlargements, and some skin diseases; and then the action of incandescent light upon rheumatic joints, chronic synovitis, etc.; this chapter concluding with a description of incandescent light in gynæcology. The effects of red, blue, and ultra-violet radiations having next been disposed of, Dr. Cleaves draws attention to vacuum tube discharges. Chapters 18 and 19 discuss the N rays, Alpha, Beta, and Gamma rays of radio-active substances; and then radium, its physics, physiological action and therapeutic value, together with much original research work of Prof. and Mme. Curie, is fully described. Fluorescence and sensitisation occupy chapter 20, and the work concludes with a chapter on the pernicious effect of sunlight, insolation, and the pathological effects of electric lighting. In this exhaustive and splendid volume, the practical as well as the theoretical side is thoroughly handled; the pages are written in an attractive style, illustrated by numerous well-executed blocks; and without doubt it is the best compilation upon the subject to the present time. Dr. Margaret Cleaves is to be complimented on the production of such a work, which on its own merits will form a standard book of reference either for the student or specialist. L.H.H.

THE TREATMENT OF SYPHILIS. By F. J. Lambkin, Lieut.-Colonel, R.A.M.C. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1905. 8vo. Price, 3s net.

The author evidently has had the advantage of abundant material upon which to study the effects of some of the Continental methods of treating syphilis. We are familiar with the remedies he makes use of. He gives preference to uninterrupted weekly intramuscular doses of diluted grey oil for eight to twelve months. At the end of this time he considers the patient cured. Most physicians prefer the interrupted treatment adopted by Fournier, extending over a more lengthened period—two to four years. English physicians generally administer mercury by the mouth, and this certainly answers in the majority of cases. When it is given hypodermically, the salicylate of mercury is the preparation most generally used. The technique of making the injection might have been more thoroughly gone into. Dr. Lambkin rightly points out that when you have malaria complicating syphilis the plasmodium appears to render the subject particularly liable to severe symptoms, an observation first made by Ward. The book is a short account of a very large subject, and therefore imperfect. W.McM.

DISEASES OF THE GALL-BLADDER AND BILE-DUCTS, INCLUDING GALLSTONES. By A. W. Mayo Robson, F.R.C.S., assisted by J. F. Dobson, M.S. (Lond.), F.R.C.S. Third edition. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 15s net.

The great advances made during the last few years in this branch of our art is well exemplified by this book, which has more than doubled itself since it was first published in 1897. Chapter vii., on Cholelithiasis, is especially well worth reading. It contains a full description of the newer methods of operating adopted by the author, and details as to after-treatment. All operating surgeons will welcome this book, for Mayo Robson is acknowledged on all sides as a master in this department of surgery. The facility with which these operations on the bile passages are now performed, and the success that follows, is in a large measure due to his teaching. C.P.B.C.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH FEBRUARY, 1905.

THE RELATIONS OF THE PROFESSION AND THE GENERAL PUBLIC.

IN his presidential address to the Ballarat Disrict Branch of the British Medical Association, published in another column of this issue, Dr. MITCHELL passed ovei any special subject of medicine or surgery to deal with some matters which, though commonplace, are yet of great importance to the profession generally at the present time. Some of these have been dealt with in our pages from time to time, and we are glad to find Dr. MITCHELL in accord with the views expressed in the GAZETTE. He shows how the idea of the Friendly Society has been departed from, and how the profession is imposed upon by various organisations, not excluding the "political organisations with medical accessories," under which name we presume he refers to the Australian Natives' Association. It is just as well to have this Association described in true terms by a prominent medical man in Victoria, and we hope that now the profession in Ballarat, at any rate, will refuse to be domineered over by the A.N.A.

Dr. MITCHELL also effectually disposes of the idea that the profession is well protected by Act of Parliament, and shows that the Medical Acts in their scope and tenor are designed to protect the public rather than the profession. He also points out how important duties are imposed upon medical practitioners by some Acts of Parliament, for which little or no adequate remuneration is offered. We must, however, differ from him when he suggests that, just as the State undertakes by means of its central and local boards of health and its sanitary equipment to place preventive medicine within reach of all, it should undertake to maintain the general public in good health (since the maintenance of the health of the community is an important factor in political economy), and to effect this that medical practitioners should become officers of the State, and be responsible to the State and not to the individual. By all means the medical profession must do its best to maintain the good health of the public, just as it does its best to restore, as far as lies in its power, the health of the individual which has been impaired; but we hope the day is far distant when the majority of medical practitioners are to become State servants, and only a favoured few are to be allowed to make a living independent of State control. Such a system would, we feel sure, be disastrous to all parties, and the State-paid medical practitioner of the future might well envy the lot of the stonebreaker. At present the medical men who devote their whole time to work in the Government service, such as the health officials, the medical officers of the lunacy service, etc., are miserably underpaid, and there is little hope of any improvement under the present conditions.

Dr. MITCHELL also adverts to the serious inroads into professional work arising from the wide dissemination of medical knowledge of a kind in newspaper and magazine articles, so that self-medication with tabloids and other proprietary medicines supplied by the wholesale chemists is assuming serious proportions. There is no doubt that great changes have come and are coming over the relations between the medical practitioners and the public. In past time the family doctor was the friend and confidential adviser of the family; he was a welcome guest on every festive occasion; and he came to know intimately the family and personal history of his patients. But now things are changed, and the family doctor is becoming a thing of the past. It is the prescribing chemist, or the purveyor of the tabloids, or the advising nurse, who is called in; the medical man is only consulted under protest to see the patient once or twice and then get his dismissal. On the next occasion of illness the same routine is gone through, and this time another doctor is called in, to receive the same treatment. These changes have come within recent times, and it is impossible to predict what the next few years may bring forth in this respect. One thing, however, is certain, that with the increasing number of medical practitioners, and the diminishing amount of practice to be obtained, it will be much harder for the practitioner of the future to secure even a modest income ; and it will be well for those who contemplate entering the profession to pause and consider well before they embark on their long and expensive course of study.

THE TREATMENT OF INOPERABLE CANCER.*

In a small pamphlet recently published, Dr. Shaw-Mackenzie discusses two methods of hypodermic medication in the treatment of inoperable cancer. He refers to the treatment advocated 15 years ago by the late Professor Clay, of Birmingham, of administering chian turpentine by the mouth in cases of cancerous disease. It is well known that Professor Clay obtained some remarkable results by this method of treatment, but other investigators failed to secure similar results, and it rapidly fell into abeyance. Dr. Shaw-Mackenzie has revived this treatment, but now uses the drug by deep injections into the subcutaneous tissues. He uses an "all glass" syringe with an irido-platinum needle, and begins with a dose of 5 minims of a 20 per cent. combination of chian turpentine with olive oil, increasing by 5 minims on alternate days up to 60 minims. He records two cases of treatment by this method in which, although a cure was not effected, there was a great relief of pain and fetor, with considerable shrinking in the growth. He then refers to the method which has been advocated for some years by Mr. J. H. Webb, of Melbourne, of treating cases of inoperable cancer by hypodermic injections of soap, along with the internal administration of purified ox-gall. He reports two cases of inoperable cancer treated by Colonel Ligertwood and himself by this method in which great improvement took place, but no cure was effected. He then quotes abstracts of some striking cases reported by Mr. J. H. Webb. In conclusion, he does not claim the hypodermic injection of chian turpentine or soap as a method of *cure* of inoperable cancer, but he does claim that, so far as his experience goes, there is an apparent arrest of growth and the removal of some of the worst features of the disease, namely, pain and fetor. He does not consider it possible to assert what is the precise action of either of these drugs upon cancer ; but he maintains that the direct removal of associated inflammation and the production of a marked leucocytosis as the result of the treatment by chian turpentine are noteworthy. He admits that an extended trial is necessary in order to arrive at a definite conclusion as to the value of these methods of treatment, but he is, nevertheless, personally satisfied that the results justify a trial in all cases of cancerous disease.

In view of the fact that we are still in ignorance of the true pathology of cancer we cannot condemn any system of medication for this disease as futile until it has been proved to be so as the result of extensive investigation. When we are brought face to face with a case of inoperable cancer, whether primary or recurrent, after operation, it is surely justifiable to use any system of treatment which has been successful in the hands of some observers in relieving pain and other serious discomforts, even though it does not effect a cure. We think Dr. SHAW-MACKENZIE has done good service in publishing the results of his experience, not with a view of posing as a cancer curer, but that, in view of the urgency of inoperable cancer, no time may be lost in enabling others to put the treatment to a test.

---

*Some Methods of Hypodermic Medication in the Treatment of Inoperable Cancer. By John A. Shaw-Mackenzie, M.D. (Lond.). London: Baillière, Tindall and Cox. 1904.

THE MONTH.

The Declining Birth Rate.

The investigations of the New South Wales Government Statistician regarding the births, marriages and deaths of the past year show a distinct improvement upon the position of affairs 12 months ago. There has been a substantial increase in the number of marriages and births, and a substantial decrease in the number of deaths. During the year the births numbered 38,697, which is the largest record since 1895, the excess over last year being 2731. The increase in the number of births is very perceptible in the last three quarters of the year. The birth rate represents an average of 26·77 per thousand of population, compared with 25·28 for the year 1903. Although the increase, compared with the previous year, has been considerable, the rate is still very far below that of ten years ago, namely, 31·75 in 1894 and 38·44 in 1884. The number of marriages celebrated in the State during the year 1904 was 10,429, which is 670 in excess of the previous year, and a larger number than was registered in any previous period, the years 1901 and 1902 alone excepted. The numbers for 1904 give a ratio of 7·21 marriages, or 14·42 persons married per thousand of the population, which compares favourably with the 6·95 and 13·90, which is the average of the preceding 10 years. It would be interesting to know how far this increase in the birth rate is to be attributed to the results of the investigations of the Royal Commission.

A State Sanatorium for Consumptives in Victoria.

The Victorian State Government have finally decided to refuse permission for the opening of the Kronheimer ward at the Austin Hospital for Incurables at Heidelberg for the reception of consumptive patients. To compensate for this, the Premier, Mr. Bent, states that the Government have decided to utilise 200 acres of Crown lands, situated between Somerton and Broadmeadows, for the purpose of a State sanatorium. He has inspected the site in company with the Minister of Health and Dr. Norris, and it is intended to make provision as soon as possible at this place for 60 patients. The accommodation will consist of approved wood frame and canvas-covered structures, with verandahs, for the accommodution of the patients, and the administration block will be built of jarrah. The buildings are to be ready in a month's time from the present date for the reception of patients. The Government intend to deal with the care of consumptives as a State question. Both classes of patients —the curable and incurable—are to be accommodated at the sanatorium. In the meantime he has authorised Dr. Norris to give every attention to any cases that are brought under his notice, and to expend up to £20 a week in providing medicines, comforts, or other necessaries. It is intended to convey the patients by motor car to the new sanatorium so as to prevent any risk of contagion in trains or tram cars. There is an area of 300 acres adjoining the site, which can be also utilised if necessary for the purposes of the retreat.

The Treatment of Indigent Consumptives in Tasmania.

A special meeting of the general committee of the Victoria Convalescent Home, Hobart, was held last month for the purpose of discussing the necessity for establishing a sanatorium for consumptive patients in Tasmania. Dr. Elkington, Chief Health Officer, who addressed the meeting by request, pointed out that "in 1903 alone 162 persons were reported as having died of different forms of tuberculosis in Tasmania. Of these, 95 were between the ages of 15 and 40 years, 44 being males — the majority presumably breadwinners in one degree and another—and 51 females, principally at the house-mother ages. The capital value of a life being taken at £800 roughly, this represented a total loss of nearly £130,000 in the most important of the assets of the State, namely, its population, in a single year. To this must be added loss of wages, expenses of attendance and nursing, and more than all a vast amount of suffering on the part not only of the victims, but of those dependent on them. At the General Hospital, Hobart, in the same year 87 cases were treated, 36 as in-patients, with 7 deaths, and 51 as out-patients. Other countries have realised the enormous importance of attempting to control consumption, and have proved how easy it is to reduce the death rate by organised measures." He then gave an account of the characters of building, the climatic conditions, and the general supervision required for a sanatorium for the treatment of this disease. It was resolved to hold a public meeting as soon as practicable, in order to discuss the advisability of providing a sanatorinm for consumptive patients in Tasmania. Drs. Elkington and Crowther and some ladies were appointed a sub-committee to make all necessary arrangements for the public meeting. We hope that this movement will receive the hearty support and co-operation of the profession, and that Tasmania will soon be in line with the other Australasian States in adopting what is recognised at the present day as the most effectual method of treating pulmonary tuberculosis.

Infantile Mortality in Brisbane.

At a recent meeting of the South Brisbane Municipal Council, Dr. Clatworthy, the council's medical officer, submitted a report on the infant mortality in South Brisbane district in November last. He said the most striking fact in the return obtained was that nearly 50 per cent. of the deaths were those of illegitimate children. With three exceptions, all these children died from gastro-enteritis, a disease which it was well known was due to dietetic causes. From the answers the various doctors attending these children had kindly given him, he found that the children either did not have breast milk, or that it was supplemented by some other kind of food. The remedy for this state of things was to give the children suitable food when from various causes they were unable to obtain breast milk ; but the application of the remedy was not so easy. Having regard to the very large proportion of illegitimate children among the deaths recorded, he suggested that every woman having charge of an infant not her own should be registered and be subject to supervision, either by a medical man or by a specially appointed inspector, as was done in Sydney. It was decided that the report should lie on the table until the next meeting of the council, and that meantime copies of it be sent to the Home Secretary and the Commissioner for Public Health. Unless there be some such supervision as suggested by Dr. Clatworthy it is certain that this excessive mortality of infants from preventable causes will continue, and some Act such as the New South Wales State Children's Protection Act should soon be placed on the Statute Book of Queensland.

The Sydney Meat Supply.

At the close of the last session of the New South Wales Parliament the Chief Secretary gave notice of his intention to move for a committee of the whole " to consider the expediency of bringing in a bill to enable the City Council to establish and maintain a public abattoir, to regulate the slaughter, skinning, scalding, and dressing of cattle within such city, or within 14 miles thereof ; to enable the council to establish a meat market ; to acquire, resume, and hold land, and erect buildings and works, and to raise by debentures a sum not exceeding £200,000." No further steps were taken in the matter, but the Board of Health, at a meeting held last month, laid down the following conditions which the members consider should be kept in view in framing a bill to empower the City Council to erect and control new abattoirs to serve the metropolitan area in place of those on Glebe Island :—" (*a*) The complete inspection of all meat killed within, brought into after slaughter elsewhere, or exported from a district to be defined, so as to include the whole, or the major portion of, the population in the metropolitan district. (*b*) The removal of the several nuisances caused by, and all the obstacles to complete inspection presented by, private slaughtering-houses within the said district. (*c*) The abolition of private slaughtering, by the repetition and extension of the provisions to that end inserted in the Sydney Abattoirs Act, 1850. (*d*) Concentration of slaughtering at one or more points within the said district. (*e*) The stamping of all meat passed at such points. (*f*) The delivery of all carcases killed outside, and imported into the said district, at an appointed place or places, there to be inspected and stamped with a differential stamp. (*g*) The establishment of cool stores and markets. (*h*) The preservation of the interests of the large freezing works by the appointment to them of inspectors delegated from the staff of the City Corporation, such inspectors to be paid, by fees or otherwise, by the companies to which they are appointed, and to be empowered to apply the abovementioned stamp to carcases duly passed by them."

Treatment of Infectious Diseases in Brisbane.

According to the Brisbane Hospital *Monthy Chronicle*, at a final conference on January 11th it was agreed that the Wattlebrae Hospital should be vested in trustees, who are to lease it to the Brisbane Hospital Committee, and while the premises are to be regarded as primarily for the treatment of infectious diseases, the committee will be unfettered in their appropriation of it. Nineteen local authorities and the committee will enter into an agreement, the latter to treat and the former to pay for persons suffering from infectious diseases other than plague, cholera, smallpox, and typhoid. The rate of pay agreed upon is 4s 3d per head per day, adjustable if found inequitable, and the minimum payment is to be £300 per annum. The sum of £3000 is to be provided by the local authorities within two months from the date of signing the agreement to put Wattlebrae into effective condition. The local authorities will be responsible for landlord's repairs, and the committee for the up-keep usually falling to the charge of the tenant. A standing committee will represent the local authorities, having power to settle differences that may arise, to deal with certain outlays, and, on emergency, to sanction the erection of any temporary extension that may become necessary as in the course of an epidemic. The expression "infectious diseases" bears, in the agreement, the interpretation given to it in the Health Act of 1900, and therefore does not cover measles. Provision is made in the draft agreement for the inclusion of any local authority not at present a party to it, on payment of an equitable contribution to the capital sum contributed by the others.

Physically and Mentally Deficient Children.

The best method of dealing with the education of children who are physically and mentally deficient is a difficult problem. Mr. T. W. Turner, who has recently been appointed Assistant Under-Secretary for Education in New South Wales, has furnished a report to the Government on the subject. He considers that the Randwick Asylum buildings are suitable for a school for these children, but there are some drawbacks against their use. In the first place he considers they are too distant from the city ; in the next, a totally new equipment would be necessary to make them suitable for the treatment of defective children, and this would involve a considerable expenditure. He is of opinion that if the Institute for the Deaf and Dumb and Blind were further subsidised, it would provide the necessary accommodation for the treatment of the physically and mentally defective. He considers the Randwick Asylum buildings and grounds an ideal place for a truant school. The few children now there should be boarded out. The unoccupied classrooms could, with a little expense, be fitted up as workshops, in which the children could be employed when not engaged in their ordinary class lessons. The school should be residential. Short periods of detention would not only be more suitable to our conditions, but would provide a more effective means of coping with the truant evil than would otherwise be the case. Mr. Turner's suggestions are valuable, but special legislation would be required to provide for the establishment of a truant school. The Minister for Education has been asked to carefully consider the report and to introduce a bill dealing with this matter.

A clinical afternoon will be held on Friday, February 24th, at the Out-patients' Department of the Royal Alexandra Hospital for Children, Valentine-lane, Sydney, at 4 p.m. Subsequent meetings will be held throughout the year on the last Friday but one of each month.

On February 2nd Lady Le Hunte opened a residential home at Adelaide, S.A., in connection with the South Australian branch of the Royal British Nurses' Association. This is the first of the kind in Australia.

ERRATUM.—The first part of Dr. Corlette's paper on "Review of Starch Digestion in Young Infants," published on page 1 in our last issue, should have appeared under the title, "Determination of Starch Content in Barley Water and Rice Water." We regret the error that was made.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

Queensland.

An informal meeting of this Branch took place on Friday evening, January 13th, when Dr. John Thomson gave a limelight demonstration of a series of his micro-photographs of bacteriological specimens. As, with a rare exception, each picture showed the same degree of enlargement, comparisons of form and size were readily made. Frequent, though necessarily brief, discussions were raised on questions of bacteriological interest, and these materially enhanced the value of the exhibition. A number of sections showing filariæ in various stages of development, some in the thoracic muscles, some in the head, and some ready to be extruded with the proboscis of the mosquito, were shown.

Dr. Thomas Bancroft, at whose instance they had been secured, demonstrated these specimens.

Dr. Thomson then gave a brief description of the methods by which the clearness and definition of his micro-photographs were obtained, with illustrations of the various stages of some of his processes.

A vote of thanks to Dr. Thomson, moved by the president, brought an interesting evening to a close.

A general meeting of the Branch took place on Friday, February 3rd. Dr. Robertson (president) in the chair, and 19 members were present. Visitor, Dr. Lulu Ure.

Dr. Love exhibited a case of non-ulcerating papulo-squamous syphiloderm.

The Secretary read a letter from the widow of the late Dr. Eames, of Wynnum, asking members to recommend convalescent patients to her boarding house at Wynnum—a request which was favourably received.

A recommendation of Council to elect Dr. Alexander Francis as member for Queensland on the General Council was unanimously passed.

A letter from the New South Wales Branch, suggesting that annual or biennial meetings of the Australasian Branches of the British Medical Association should be substituted for the Triennial Congress meetings was submitted, with a resolution of the Council that the new movement be supported should the other States fall in line.

After considerable discussion, a motion, proposed by Dr. Byrne and seconded by Dr. L Estrange, to the effect that "Though the meeting approved of the scheme, it considered that the time was not yet ripe for such a change," was carried almost unanimously.

A letter from the General Secretary, suggesting the levying on all members resident in Australasia a compulsory subscription of £2 2s in order that copies of the *Australasian Medical Gazette*, as well as of the *British Medical Journal*, should be supplied to all members. was, after a brief discussion, referred to the Council for further consideration and report.

A discussion on the question of the expediency of the existence of honorary Government appointments, with special reference to the appointment of an honorary pathologist to the Government, was introduced by Dr. Espie Dods. Drs. Love, Brockway, Gibson, L'Estrange, Garde, Lightoller and Halford took part in the discussion. On the broad question all were agreed, but the circumstances under which the special appointment had been made were such that it was decided that no action could be taken.

A motion, proposed by Dr. Brockway, seconded by Dr. Gibson, was carried, "That the matter be left for the present, but that at the first opportunity the medical profession should demand that the pathologist be paid."

The President, Dr. W. N. Robertson, read a paper on "Aural Discharges." (See page 59.)

Dr. L'Estrange advocated the use of equal parts of cocaine and carbolic acid for producing anæsthesia for puncturing the membrane in otitis media. He thought early inflation dangerous where the drum was still intact. He objected to the dry after-treatment, as it was apt to prevent free drainage. He advised that for the cure of long-existent perforation a trial of tri-chlor. acetic acid should be made—*i.e.*, in such cases as trial of an artificial drum showed the likelihood of hearing being improved.

Dr. Lockhart Gibson advised Politzerising in every case of middle ear catarrh, and said that many early cases of otitis media seemed to abort when regularly Politzerised. Where pain persisted he would at once incise and continue inflation. If pus were diagnosed he would incise first and then regularly inflate. He had given up cocaine in paracentesis, as the preliminary manipulations were more painful than the actual incision, and would never use pure carbolic acid. He pointed out that many cases of long-existent perforations that were quiescent and unaccompanied by discharge might hear less well if the perforation be closed.

Dr. Turner considered the subject of otitis from the point of view of the general practitioner, to whom the greater number of these cases come. He emphasised the number of cases in which there is no pain, only a very irregular temperature and, perhaps, a history of past adenoids or deafness, or an irritability sometimes suggesting meningitis. He pointed out that it occasionally occurs in cases that are developing a pneumonia.

Dr. Love thought that some anæsthetic should be used, as the pain of paracentesis was often considerable. He had used cocaine in aniline oil, and found no bad effect. For hard plugs of cerumen he found liquor potassæ an excellent solvent. To prepare a warm solution of peroxide of hydrogen, he advised warming the bottle, not adding hot water for fear of losing the oxygen by so doing.

Dr. Robertson replied that, though not an absolute adherent of the dry method, he had seen very good results from it. He agreed with Dr. Gibson that many large perforations were better left alone, and had also found that early inflation in serous cases often aborts the disease. He had heard of poisoning by the use of aniline oil and cocaine as an anæsthetic.

Ballarat.

The annual meeting was held on January 26th, 1905. Present: President (Dr. J. T. Mitchell), and 16 members.

Apologies were received from Drs. Connor, Courtney, Cussen, Davies, Morrison, and L. R. Steele.

The minutes of last annual meeting were read and confirmed.

The following accounts were passed for payment:—Subscriptions to Victorian Branch, £65 12s 6d; petty cash, £1 6s 7d.

Drs. D. A. Robinson, C. F. Hodgkinson, P. V. Langmore, and A. B. Campbell were elected members.

The annual report and balance-sheet were received and adopted.

Dr. J. T. **Mitchell** read the presidential address, entitled " The Relation of the Medical Profession to the General Public." (See page 51)

Dr. **Mitchell** vacated the chair and introduced his successor, Dr. T. A. Wilson, who was warmly received, and thanked the members for electing him to the position of president.

A hearty vote of thanks was accorded to the retiring president for his instructive address.

The **President** then declared the following officers duly elected for the ensuing year:—Vice-president, John Steell, M.B., Ch.M. (Edin.); hon. treasurer, H. R. Salmon, M.B., Ch.B. (Melb.); hon. secretary, E. Champion, M.B., Ch.B. (Melb.); council (2), Robt. Scott, M.D., Ch.M.; J. K. Richards, M.D.

A hearty vote of thanks was accorded the hon. auditors, Messrs. R. A. Cue and F. G. Haynes, and they were re-elected.

It was resolved on the motion of Dr. R. **Scott**, seconded by Dr. H. R. **Salmon**—" That the members of this Branch of the B.M.A. decline to make post-mortem examinations without giving sworn evidence as to the cause of death."

It was resolved on the motion of Dr. **Champion**, seconded by Dr. Robt. **Scott**—" That a circular be sent to all chemists in Ballarat and district asking them always to return doctors' prescriptions after they have been dispensed."

The meeting then terminated, and the members were entertained at supper by the retiring president, Dr. J. T. Mitchell.

New South Wales.

COUNCIL MEETING.

The Council met at the Association Rooms on Friday evening, January 13th, 1905. Present: Drs. MacCormick, Crago, Rennie, Jarvie Hood, Hankins, Abbott, Dick, Brady, and Beeston.

The minutes of the previous meeting were read and confirmed.

Apologies were received from Drs. Pockley and Worrall.

The following members were elected:—Dr. J. MacBain Ross, Tibooburra; Dr. M. H. Harris, Wee Waa; Dr. Bell, Wilcannia.

Letter from the Mutual Life Society with reference to the Widows and Orphans' Fund was received

Letters were received from Victoria, South Australia, Queensland, and Tasmania with reference to the circular letter about the annual meeting of the Branches of the British Medical Association.

Circular from the Lisbon Conference asking for representation.

Circular from the president-elect of the British Medical Association asking for representatives to the next annual meeting, to be held at Leicester. Resolved—" That Professor Wilson be nominated as one of the Branch representatives.

Letter from Dr. Hein stating that he had given up the People's Prudential and the A.N.A. Lodges. Received.

WANTED, a duly qualified Medical Practitioner for the Jundah District Hospital, Queensland. Salary, £300 per annum, with right of private practice, estimated at £200 per annum. Applications, with testimonials, on or before March 29th. Sec., Jundah, via Longreach.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Leper Settlement on Robben Island—The Bradshaw Lecture—The New Chancellor of Glasgow University—London School of Tropical Medicine—The General Medical Council.

In a letter to *The Times*, Mr. Jonathan Hutchinson has given a graphic description of a visit to the treeless and desolate leper settlement on Robben Island, which is situated close to Capetown. From personal observation, he says, sufferers who are sent to the island sink into a condition of dull, hopeless apathy. Isolation is there effected by Nature, for no one once landed on the shores of Robben Island can hope to escape. It is true that a leper consigned to its safe custody is not manacled, nor is he put in a cell. He may roam where he pleases. He is well fed and has a comfortable bed, and the ministrations of those who point him to compensatory happiness in another world are abundant and most kindly offered. The women are strictly secluded within a wire-fenced compound, which they can leave only under the care of a keeper. A prisoner on Robben Island is there practically for life, and the leprosy law of Cape Colony consigns to that prison everyone without regard to sex, age, or social position who is found to show the symptoms of leprosy in any stage or form. Release is only possible under medical certificate of absolute cure. The bulk of those on Robben Island belong to the coloured races of the colony, but there is a fair proportion of whites. Mr. Hutchinson conversed with a number of Boer farmers—intelligent, well-educated men, who had been forcibly taken from their homes, their wives, and their families. The idea that leprosy renders the sufferers unfit for their homes and makes them objects of pity and repulsion is, the writer declares, a great mistake. " In the name of humanity, and on behalf of the 600 miserable beings there confined," Mr. Hutchinson calls for a commission of inquiry.

The Bradshaw Lecture was delivered on December 1st at the Royal College of Surgeons by Mr. Mayo Robson, who chose for his subject " The Treatment of Cancer." Having expressed his gratification at having been chosen Bradshaw Lecturer for the year, and explained the difficulty he had experienced in the choice of a subject, the orator proceeded to consider the etiology of cancer, and expressed the opinion that while the disease is not infectious in the ordinary sense of the term, there is a huge accumulation of facts to prove that it is locally infectious and capable of distribution by contact and inoculation; also that it is auto-infective, so that an imperfect operation becomes dangerous, since, by distributing the cancer cells, it might implant numerous foci of disease. He uttered a warning against the fatalistic tendency to delay, and the senseless running after false gods, in the matter of treatment. From personal experience he could say that cancer, if it were treated early, and thoroughly removed, was by no means so hopeless a disease as was usually thought. The fact that cancer was very often only submitted to the surgeon when it had ceased to be a local disease had not only misled the public, but biassed many members of the medical profession as to the true facts of what surgery could do for cancer. In an immediate, complete, and wide removal lay the only hope and cure of malignant disease. In the treatment of cancer there were preventive, curative, and palliative operations. He thought the ultimate discovery of a prophylactic was very hopeful. In certain situations pre-cancerous conditions could be readily recognised, especially in the uterus, the lips, the tongue, and skin, suggesting strongly that cancer was a new importation upon a prepared ground. Cancer of lips and tongue occurred much more frequently in men than in women, and that was attributable in great measure to the abuse of tobacco, which should be stopped as soon as it began to irritate. A moderate use of tobacco might not be injurious, especially if cigar and cigarette holders and mouthpieces to pipes were used. Since the clay pipe had in a great measure been given up, there had been fewer cases. All cases where the disease was limited ought to be capable of cure. It could not be too strongly insisted upon that where chronic ill-health in a patient at or after middle age was associated with dyspepsia, progressive loss of weight, and anæmia, careful examination of the stomach and abdomen should be made; for to wait until obstruction occurred was to lose the favourable opportunity and add seriously to the danger of any operation. It was desirable that there should be a crusade against the neglect of the early symptoms of cancerous growth, and it behoved the medical profession and the public alike to shake off the pessimism which had existed with regard to the succesful treatment of cancer..

On November 29th Lord Kelvin was installed as Chancellor of the University of Glasgow, in succession to the late Earl of Stair. The company present on the occasion included the Princess Louise, Duchess of Argyll, one of the recipients of the degree of Doctor of Laws, who was accompanied by the Duke of Argyll. The other graduates were the Marquess of Ailsa, Dr. James Thomson Bottomley, Dr. James Donaldson (Principal of the University of St. Andrews), Sir John Charles Dalrymple Hay, the Rev. Dr. John Marshall Lang (Principal of the University of Aberdeen), Signor Marconi, Mr. Graham Murray, M.P. (Secretary for Scotland), Mr. Charles A. Parsons, and the Lord Provost of Glasgow (Sir John Ure Primrose). Principal Story presided, and Sir James King moved that Lord Kelvin be installed as Chancellor of the University of Glasgow. The oath was then administered. His Lordship having been invested with the Chancellor's robes took the chair. Having returned thanks for the honour conferred upon him, Lord Kelvin referred to his long connection with the University, in which he confessed to having lived for 67 years. He then gave some interesting recollections of his student days, and in the course of his remarks said: " To this day I look back to William Ramsay's lectures on Roman antiquities and his readings of Juvenal and Plautus as more interesting than many a good stage play that I have seen in the theatre. Greek, under Sir Daniel Sandford and Lushington; logic, under Robert Buchanan; moral philosophy, under William Fleming; natural philosophy and astronomy, under John Pringle Nichol; chemistry, under Thomas Thomson; natural history, under William Couper, were, as I can testify by my own experience, all made interesting and valuable to the students of Glasgow University in the thirties and forties of the nineteenth century. As far back as 1818 to 1830 Thomas Thomson, the first Professor of Chemistry in the University of Glasgow, began the systematic teaching of practical chemistry to students, and by aid of the Faculty of Glasgow College, which gave the site and the money for the building, realised a well-equipped laboratory, which preceded by some years Liebig's famous laboratory of Giessen, and was, I believe, the first of all the laboratories in the world for chemical research and the practical instruction of University students in chemistry. That was at a time when an imperfectly informed public used to regard the University of Glasgow as a stagnant survival of mediævalism. The University of Adam Smith, James Watt, and Thomas Reid was never stagnant. For two centuries and a-quarter it has been very progressive. Nearly two centuries ago it had a laboratory of human anatomy. Seventy-five years ago it had the first chemical students' laboratory. Sixty-five years ago it had the first professorship of engineering of the British Empire. Fifty years ago it had the first physical students' laboratory—a deserted wine cellar of an old professorial house, enlarged a few years later by the annexation of a deserted examination room. Thirty-four years ago, when it migrated from its 400-year-old site off the High-street of Glasgow to this brighter and airier hilltop, it acquired laboratories of physiology and zoology, too small and too meagrely equipped, and now every university in the world has, or desires to have, laboratories of human anatomy, of chemistry, of physics, of physiology, of zoology. Within the last 30 years laboratories of engineering, of botany, and of public health have been added to some of the Universities of the British Empire, with highly beneficent results for our country and the world. All these the University of Glasgow now has. Splendidly liberal subscriptions by the people of Glasgow and by a world-wide public outside, backed by powerful aid from the National Treasury, enabled the University on leaving its ancient site to enter into the grand group of buildings on Gilmore Hill in which it has happily lived ever since. A few years later the generous gift of £45,000 by the late Marquess of Bute built the hall called after his name, in which we are now met. At the same time, the adjoining Randolph Hall and staircase were built by a portion of the legacy left to the University by the late Mr. Randolph. The Queen Margaret College and grounds were presented to the University by Mrs. Elder, who also added largely to the endowment of the Engineering Professorship, and founded the Professorship of Naval Architecture. Other generous donors have given an engineering laboratory, with lecture rooms and botanical buildings, and great and much-needed extensions in the anatomical department. The Carnegie Trust and the Principal University Equipment Scheme are at present providing two new buildings. One of these is for extensions in the Medical School; the other, in which I naturally take the most personal interest, is for the Natural Philosophy Department, including lecture rooms and a physical laboratory, all designed, and at present being realised, under the able direction of my successor in the Natural Philosophy Chair, Professor Andrew Gray."

The progress of the London School of Tropical Medicine has exceeded the most sanguine expectations of those who were responsible for its foundation, and by its success has abundantly testified to the need that existed for technical instruction in this new department of medicine. Since the foundation of the school each session has marked an advance on its predecessors, and the present term beats the record with a total of 37 students. This rapid accession of numbers has seriously taxed the school accommodation, and it is already obvious that very shortly the present laboratories and class-rooms will prove inadequate to meet the requirements of the students and teachers. In this, as in all thriving pioneer institutions, the revenue is too small for the inevitable outlays, plus the extensions, which are the penalties of success. No scheme could more commend itself to the generous than one which aims at ameliorating the health and physique of those less civilised races brought, by force of circumstances, under the dominion of the British throne, and which at the same time promotes the safety of our own fellow-countrymen who are exposed to endemic and epidemic diseases peculiar to the condition of tropical climate and environment under which a great portion of their lives is destined to be passed. Philanthropy is a world-wide virtue which has its votaries in every country and in every clime. For anyone who is only waiting his opportunity to give tangible expression to the benevolent impulses which animate him, the claims of such a school as this should appeal loudly. And if such there be among the great and charitable of Australasia, it may be of interest to mention that, at the present moment, no fewer than four students of the London school hail from the land of the Southern Cross. Their names are Dr. Angas Johnson, of Adelaide; Dr. Helen Mary Mayo, of Adelaide; Dr. J. B. Cleland, of Sydney; and Dr. J. Gillies, of Townsville, Queensland.

The 80th session of the General Council of Medical Education and Registration of the United Kingdom was opened on November 22nd at the offices in Oxford-street, Sir William Turner presiding. After the introduction by Dr. MacAlister of Mr. Arthur Thomson, M.A., Professor of Human Anatomy in the University of Oxford, and by Mr. Young of Professor Alfred George Barrs, M.D., as members of the Council, the president delivered his opening address, in which he stated that during the recess some changes had taken place in the *personnel* of the Council. Dr. Payne was no longer a member, and in his place the University of Oxford had selected as its representative Professor Arthur Thomson. Following the grant of a Royal Charter in April last, the power of conferring degrees and other academic distinctions had been given to the University of Leeds, and the Council of that University was entitled to send one representative to the General Medical Council. Official information had been received that Dr. A. G. Barrs had been chosen. In May last the Council passed a resolution requesting the Lord President of the Privy Council to introduce into Parliament a bill to confer upon the General Medical Council statutory powers to establish and maintain registers of medical and dental students, and to impose a fee not exceeding £1 for registration therein. He forwarded this resolution to the Clerk of the Privy Council, and in a letter dated the 1st instant, Mr. Almeric FitzRoy informed him that communications on the subject had been received from the presidents of the Royal Colleges of Physicians and Surgeons in London, and he suggested that, in the circumstances, it might be expedient for the Medical Council to confer with the Colleges, with a view to the preparation of a scheme providing for their co-operation towards the desired end, on a basis that would recognise existing rights. When by the Medical Act, 1862, the General Council became a corporate body, with the right to have and use a common seal, the president at the time was requested to propose a design for the seal. The one selected bore in the centre the figure of Hygeia, the Goddess of Health, robed and holding the serpent and cup, while on one side of the goddess was the device of a roll of parchment, and on the other of a mace. Up to this time the mace had been no more than a device on paper. He was desirous of giving to the emblem objective form, and he asked to be allowed to offer for the acceptance of the Council an example which, in its design, expressed their identification with the great profession of Medicine and their place as the administrative body representative of the three divisions of the United Kingdom. Sir William Turner further announced that his advanced age, and his duties in Edinburgh as Principal of the University, would prevent him from longer retaining the presidential chair of the Council, which he had filled for six years, and he therefore requested that arrangements should be made at the end of the present session for the appointment of his successor. Dr. Pye-Smith moved that the thanks of the Council be expressed to Sir W. Turner for his munificent gift. He assured the president that he had won the absolute respect and esteem—he might add, the affection—of every member of the Council. Mr. Tomes seconded the motion, which was unanimously adopted. After the discussion of some routine business, the rest of the day's sitting was devoted to the investigation, in camera, of penal and disciplinary cases. On the 23rd the greater part of the Council's time was taken up with the consideration of a letter from the Privy Council in reference to the proposal for the establishment of a register for medical students. It transpired that both the Royal Colleges of Physicians and of Surgeons were opposed to the proposal, and that there were other serious difficulties in the way of its adoption. Ultimately the following substantive motion, which was first moved as an amendment by Sir Christopher Nixon, became the finding of the Council:—" That a reply be sent to the Privy Council stating that this Council now sees great difficulties from opposition by certain licensing bodies in asking the Lord President to introduce a bill giving to the General Medical Council statutory power to establish and maintain registers of medical and dental students, and to impose a fee not exceeding £1 for registration therein. The General Medical Council will be prepared at the proper time to offer an alternative proposition, which it hopes may be approved of by the Lord President." Sir Christopher Nixon further suggested that, as a means of raising additional funds, which was the chief object of the proposal, the Council should ask for the right to impose an additional fee of £5 on medical men for registration on the Medical Register. Though objected to strenuously by Sir Victor Horsley and other members of the Council, this suggestion was finally agreed to. On Friday, the 25th, the pricipal business was concerned with a motion requesting the Education Committee to report to the next session whether the adoption by the Council of one or other or both of the following resolutions would not help to secure the attainment of the object the Council had in view in instituting the five years' curriculum, viz.:—(1) " That the preliminary scientific examination in physics, biology, and chemistry should be passed before the student begins the qualifying study of anatomy and physiology." (2) " That before being admitted to the final examination the student should produce evidence that he has devoted the last year of his curriculum exclusively to practical and clinical work and study." The motion was adopted. Saturday's sitting was devoted to the consideration of reports and recommendations relating to the professional education of medical students and the standard of proficiency required. Severe criticisms were passed upon the clinical part of the surgical examination of the Edinburgh University. The Visitor and Inspector of Examinations recommended that this part of the final examination should be raised. They were of opinion that means must be found to make it compulsory that medical students should be brought more into actual contact with disease both in the out-patient rooms and in the wards. At the resumed sitting on Monday, the 28th, the report of the Visitor and Inspector of Examinations on their inspection of the final examinations in the University of Edinburgh was further discussed, and the following resolution was adopted:—"The Council directs that a further inspection be made of the surgical part of the final examination in the University of Edinburgh during the year 1905." The session concluded on November 29th, the chief matter brought before the notice of the Council being a report by the Medical Companies Bill Committee on a communication from the Privy Council respecting limited companies for the practices of dentistry. Dr. Donald MacAlister, the representative of the University of Cambridge, was chosen chairman of the Council in succession to Sir William Turner.

Victoria.

(FROM OUR OWN CORRESPONDENT).

Hospital Abuse—The Kronheimer Consumptive Wing at the Austin Hospital—A Sanatorium at Broadmeadows.

THE world-wide question of hospital abuse has again been brought to the fore by Dr. G. T. Howard, the retiring president of the Medical Society of Victoria, in his able address on "Some Matters Concerning our Hospitals, from a Medical Point of View." About 12 months ago Dr. J. W. Barrett estimated that, roughly speaking, 65,000 persons were receiving hospital assistance in Melbourne annually, or, in other words, about 1 in every 7½ of the population. These figures, taken in conjunction with Dr. Howard's figures showing the increase in the last ten years, prove conclusively how grossly our hospital system is abused. I quote Dr. Howard:—"The population of Victoria has in the last ten years increased only 2 per cent.; in fact, is practically at a standstill. Not so, however, with the number of hospital patients. In the same period the number of in-patients at *general* hospitals increased 17 per cent., while the out-patients at the same institutions increased 50 per cent. At the Children's Hospital . . . . the in-patients have increased 50 per cent., and the out-patients in the same proportion." He goes on to say: "The principal reason for this extraordinary increase is most assuredly the institution of the system of exacting contributions from patients who assert—very often untruthfully—that they are unable to pay ordinary medical fees." With this conclusion all must cordially agree. Six years or so ago, when this system of contributions from patients according to their means was instituted in Victoria, your correspondent held the position of resident medical officer in one of the country hospitals. These rules were passed by the managing committee in opposition to the views of the medical staff, making the fees to be exacted run as high as 30s per week. Dr. Howard lays great stress upon this being, no less than in the case of destitute persons, a method of *gratuitous* medical treatment, as not one penny of this money reaches the profession; and if it did so—if, as Burdett and others suggest, the visiting staff should be paid—the position would only be rendered still more unfair than it is at present to the outside practitioner. "Surely," he says, "that would be a most flagrant form of underselling by the natural leaders of the profession." Dr. Howard also quotes a saying of our own Inspector of Charities as follows:—"Patients were charged according to their means, and men earning even £250 per annum might be included in the returns." What a travesty this is of public charity! Does the charitable public realise to what an extent the beds in the hospitals they support are filled by this class of patient, often, as is well known, to the exclusion of that class, the destitute poor, who alone should have the right of admission to institutions supported by Government subsidies and their subscriptions? The remedy for this form of abuse which will be the most acceptable of those which Dr. Howard advocates is "the establishment of pay hospitals on a semi-philanthropic basis, the rates being high enough to make the institutions self-supporting without profits"—or, might we add, *almost* self-supporting—"and low enough to be within the means of most of the classes at present objected to." The abuse must continue so long as these two classes—the destitute poor and those of moderate means—are admitted to the same institutions. Dr. Howard's other suggested remedies will not, we feel, be so generally acceptable to the members of our profession. They are that the friendly societies should organise "missions" to the out-patient rooms of the hospitals to induce people to join their institutions, and that these societies should "establish small hospitals absolutely for themselves in different centres of population." As these suggestions are not likely to be acted upon for some time, he emphasises the "absolute necessity for closer investigation into patients' circumstances." With a final suggestion that "representatives of various sections of the community, *e.g.*, hospital managers, hospital Sunday fund officials, charity organisation society, friendly societies, and the medical profession might constitute a committee and investigate the subject," Dr. Howard brought a most valuable address to a close.

The deadlock which has arisen with respect to the Kronheimer consumptive wing at the Austin Hospital between the Ministry and the hospital authorities still continues. The wing has been erected, but the consent of the Board of Health and the Ministry to its being opened cannot be obtained. The hospital authorities claim that the Health Act gives neither the Board of Public Health nor the Minister power to interfere in the choice of a site of any hospital building unless it could be proved to be a menace to the public health; they could only insist on the building being built in conformity with the law. So the matter stands, so far as the Kronhiemer wing is concerned. The Government and Board of Health have, however, been roused to a realisation of the need of some such institution where indigent consumptives, incurable or otherwise, can be received so that they may cease to be a focus for fresh infection in crowded and often squalid centres of population. The remedy of the Minister is the erection of an opposition sanatorium at Broadmeadows, an outlying suburb north of Melbourne, where all classes of consumptives will be received and treated. The sanatorium is to be situated in an area variously stated at from 200 to 300 acres, and situated 3½ miles north-west of Somerton railway station. The buildings are to be of wood with a canvas covering. The Minister estimates that the initial cost, including the erection of the accommodation for the administrative staff and the kitchen, will be £3000. Seven buildings for patients are to be erected, and it is expected that accommodation for between 40 and 50 patients will be afforded about the middle of March. In the meantime temporary help is being given by the Government to those consumptive patients for whom no accommodation can be found in existing institutions.

SOME DIAGNOSTIC SIGNS OF EARLY PHTHISIS.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—In your issue of January 1st, 1905, Dr. Eugene Hirschfeld disagrees with Dr. Lendon as to the site of emanation of the "odour of phthisis." I have not seen the matter referred to in books, but for a good many years I have noticed the symptoms myself. The smell arises from the bare skin, in my opinion. I will not deny that others with a keener sense of smell than mine may detect a typical odour in the breath, though I do not; but I quite agree with Dr. Lendon that it is when the patient strips for examination that the unmistakable odour is at once apparent. I have always likened it to that of certain nuts a little rancid. Rancid Barcelona nuts will give a very similar smell. I can only remember one case in which I failed to find phthisis signs after remarking this smell, and that was one of leucocythæmia. Possibly this patient had phthisis also, though I never found the bacilli.—I am, etc.,

C. H. Souter.

Balaklava, S.A.,
January 27th, 1905.

THE SYDNEY MILK SUPPLY.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—In your September issue, "C.P.B.C.," in reviewing a book on "Infant Feeding," by Ralph Vincent, M.D., makes the following statement:—"In Sydney it is quite impossible for the ordinary householder to obtain milk that is not swarming with bacteria, because none of the milk purveyors use any very special precautions to ensure real cleanliness. And even if absolutely pure milk could be obtained, we have no laboratory where it could be modified."

We feel that the writer cannot be aware of the system in practice by this company, otherwise such sweeping assertions would never have been made.

The general public, we believe, know that nothing is wanted in our methods, either by inspection of cattle and dairies, of transit, and the subsequent handling in Sydney, to ensure the purity and cleanliness of our milk, so far as is humanly possible. For years we have expended large sums of money, and the most exhaustive research, to improve the supply, and we have never hesitated to incorporate in our methods any improvement of tried value calculated to bring it further towards perfection. We therefore honestly believe that our milk, when delivered into the jugs of the consumer, is as pure and as healthful as the supply of any other large city in the world, and from personal investigation made by the company from time to time into the conditions obtaining in largely congested centres in England and Europe, the system we now have leaves nothing to be desired when the peculiar exigencies of the trade are taken into consideration.

It is admitted that the supply would be an ideal one if the milk were delivered in sealed bottles, and we do this, and have done so for years, where the necessarily extra cost is not objected to.

Regarding modified milk, your reviewer will be interested to know that we have a properly appointed analytical and bacteriological laboratory, under qualified management, for the preparation of humanised (modified) and sterilised milk. If "C.P.C.B." will visit the works we will be glad to have him closely examine the methods we employ for the safeguard of the health of the public, and we hope to convince him that, so far as this company is concerned, his statements are entirely erroneous.—I am, etc.,

D. McFadyen,
General Manager the N.S.W. Fresh Food and Ice Company, Limited.

Sydney, January 24th, 1905.

Food Adulteration in Queensland.

According to a report in the *Brisbane Courier*, an important conference was held in the Public Health Department last month, when representatives of the Brisbane Grocers' Association met the Commissioner for Public Health (Dr. Ham). The object of the conference was to consider the question of the purity or otherwise of foodstuffs at present sold to the public, and certain sections of the Food and Drugs Act relative to the adulteration of food.

After some introductory remarks, and the discussion of some samples, Dr. Ham said that he thought the present would be an opportune time for the introduction of his scheme. The question was how could the vendor satisfy himself that he was selling good material? How could an analysis be made? If the association of the traders—and it might be that the local authorities would contribute—would get an analyst, it would solve the problem at once. The cost of an analyst would not be very much, and he thought that one might be obtained to undertake the work for £200 a year. If they had an analyst they could submit their samples to him, and thus establish control over the goods they were selling. He suggested that three original samples of a certain article should be submitted to the analyst by the traders. His (Dr. Ham's) officers would also select three samples independently. Then they would be compared with those which had been first analysed, and if they corresponded and came up to the regulations, the article would be placed on the list of goods under control. That would not only protect the public, it would protect the traders themselves, and, moreover, it would give them a first-class advertisement as vendors of pure, unadulterated goods. They would now and again have to take samples to see whether the articles were being kept up to the original analysis, and thus they would keep the "list of control" up to the standard. With the article would be made an official —or semi-official—intimation that it was controlled by the association and the Health Department; and the public, upon the payment of a very small fee, could send any article on the list of control to the analyst. Thus the public would become the inspectors of their own food supply. The manufacturer would give an evidence of his good faith by entering the article on the list of control, and the vendor would be guaranteed a good article. Every article that had been placed upon the list would be officially recognised, and if it were found that it was not being kept up to its proper quality the manufacturer would be warned, and would be allowed to make an explanation to the Control Committee. It would not do for him to be struck off the list of control until wilfulness had been proved against him. If the article were struck off, the fact would be published, and a prosecution would, of course, follow. That would be an undoubted condemnation. The fact that the goods were upon the list of control and that their contents could be examined at any time by the public at a small cost would have a very good effect, and he thought the scheme should work out very well. It had worked well in the old country, Canada, and the United States. He had placed his proposals roughly before them, and the details could be gone into later on. The control would be under their own association, with the Commissioner, members of the Central Board of Health, the Government Analyst, and others.

Some discussion on this scheme then took place, and on the suggestion of Dr. Ham it was agreed to form a small committee to meet him and further discuss the question.

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Cardiac and Vascular Complications and Sequels of Typhoid Fever.

Thayer (*Johns Hopkins Hospital Bulletin*, October, 1904) deals with this subject in an exhaustive manner, illustrating his remarks with numerous case histories. He draws the following conclusions from his extensive observations:—1. Typhoid fever is a disease which, from a clinical standpoint, is often associated with symptoms suggestive of a grave weakening of the heart muscle. These changes, whether due primarily to direct action of the typhoid poison on the heart or to impaired nourishment from vaso-motor paralysis, result in a considerable proportion of cases in a temporary insufficiency of the mitral valve as indicated by the appearance of apical systolic murmurs, which are not infrequently transmitted to the axilla. These murmurs develop, especially at the height of the disease, during the latter part of the first, and in the second, third and fourth weeks, and disappear usually with convalescence. Sometimes, however, they persist. Twelve out of 188 cases of typhoid fever which were followed from three months to fourteen years after convalescence showed conditions suggestive of organic valvular lesion. In the majority of these cases a systolic apical murmur had been detected during their illness. Over one-fifth of the old typhoids in whom, during their illness, a systolic apical murmur was heard showed on subsequent examination evidence of organic disease. The average systolic blood pressure was higher in every decade among the old typhoids than in healthy individuals who had never had typhoid. The radial arteries were palpable with strikingly greater frequency in the old typhoids than in healthy individuals of the same age who had not suffered from the disease. 2. Endocarditis, while not a common complication of typhoid fever, is probably more frequent than is generally supposed. It was present without being suspected in 3 out of 95 cases coming to necropsy at the Johns Hopkins Hospital, while in three further cases out of the remaining 363 the clinical symptoms suggested its presence. In the three cases discovered at necropsy, the lesion was due to a secondary mixed infection; in two instances, staphylococcus aureus; in one, staphylococcus albus. It is not impossible that endocarditis is more frequent than indicated by these figures. Out of 188 old typhoids, eight showed mitral insufficiency, one aortic insufficiency, one possible mitral stenosis. 3. Pericarditis is an unusual and unimportant complication of typhoid fever. Three instances only were noted in 1458 cases. 4. Phlebitis and venous thrombosis is a frequent complication, occurring in over 2·6 per cent. of the cases. The onset occurs usually in the third week or later, and is in most cases associated with fever, leucocytosis and local pain. Not infrequently the fever and leucocytosis may precede the localising symptoms. The complication was ushered in or associated with chills in 28·9 per cent. of the cases. Chills otherwise unexplained occurring during the latter part of typhoid fever, or in the early stages of convalescence, especially if associated with a leucocytosis, should always suggest the possibility of a developing phlebitis. The phlebitis is in the great majority of cases localised in vessels of the lower extremity, especially on the left side, and is particularly frequent in the femoral veins—about one-half of the cases. Thrombosis of the iliac and femoral veins is always a serious complication. Although the immediate dangers—gangrene, extension of the thrombus, pulmonary embolism—are not great, the after results are often grave. In thrombosis of the femoral or iliac vein the affected extremity is always considerably and permanently enlarged, and there is usually more or less persisting disability—extensive varicosities, often resulting in ulceration; marked weakness of the limb; frequent cramps in the muscles, especially at night and after over-exertion. 5. Arteritis and arterial thrombosis is a more frequent complication than is generally supposed. This complication appears to be especially common in the cerebral vessels, although it may appear in the extremities. The onset may occur at the height of the disease, but is commoner in the third week or later. As in the case of phlebitis, the attack is often ushered in by fever and leucocytosis. In the extremities arterial thrombosis is commonly followed by gangrene, in the cerebral vessels by hemiplegia. Arteritis of the extremities may be associated with partial parietal thrombosis, from which nearly complete recovery may occur. In one case the patient, a year and a-half after his fever, showed characteristic symptoms of intermittent claudication. 6. A survey of the cases suggests that typhoid fever may be a not infrequent cause of focal arterio-sclerotic changes. In 21 out of 52 cases in which notes upon the condition of the aorta were made there were evidences of fresh endarteritis. In 13 out of 62 cases in which the condition of the coronary arteries was recorded, like changes were found. This idea is further supported by the remarkable frequency with which sclerosis of the peripheral vessels was found in old typhoids. 7. While the deleterious influence of typhoid fever upon the cardio-vascular system is not as great as that of acute rheumatism, yet through the unfortunate frequency of the disease it is probable that post-typhoid cardio-vascular defects are not uncommon.

The Differential Diagnosis and Treatment of so-called Rheumatoid Diseases.

Goldthwait (*Boston Medical and Surgical Journal*, November, 1904), in a comprehensive paper gives the results of some 12 years' work at the Orthopædic Department of the Carney Hospital. This is not the work of one man only, but of a group of men who have been connected with that department. From the large general class of rheumatoid disease, five types have been separated. First, the *Chronic Villous Arthritis*, or "dry" joint, is very common, and represents entirely a local process with no tendency to progression. There are no general symptoms; a local lack of tone with the folds of the relaxed membranes and the villi which form if the condition is of long duration, are responsible for all of the symptoms. The chief characteristics are the crepitation or creaking of the joint on motion, with varying degrees of pain and tenderness. This is most commonly seen in the knee-joint, and is very commonly associated with flat foot, the weakness there having resulted in strain and weakness at the knee. The muscular tone of thigh and calf muscles is usually impaired, and the joint membranes also become relaxed. These latter are thus thrown into folds, which under continued irritation become more swollen, and villi result. These are then liable to be drawn into the articulation during motion, and give rise to the symptoms of catching or complete locking of the joint. The local trauma thus excited leads to increase of fluid, which, however, is absorbed under compression and rest, and re-appears again if the irritation is continued. Degenerative change may take place, most often fatty, but at times calcereous.

The second type is the *Atrophic Arthritis*, or, as it is sometimes called, rheumatoid arthritis. This is a progressive disease, resulting in great distortion and crippling, with the essential pathological feature, one of atrophy, in which the joint membranes, the cartilage, the bones, and in the exposed joints, even the skin, all show the change. This disease begins by a swelling of the joint, due to an increase in the synovial fluid, and at the same time an infiltration of the membranes and the peri-articular structures. The joint structures very early show signs of atrophy, the absence or the partial absorption of the cartilage between the bones showing clearly under radiography. The atrophy becomes more marked with the progress of the disease, until it is shown by all of the structures involved in the articulation: and at times the bones are so much affected that one telescopes into the other, or dislocations or other deformities result. The disease may attack several joints in the beginning, or it may be confined to one joint, and remain so for several months. The large or small joints may be the first affected, but the finger-joints are almost always affected very early in the disease. The etiology of this condition is obscure, but the treatment should be tonic in character, with forced feeding, massage, with the administration of large amounts of water and some mild alkali. Salicylates may be of service only in small doses. The third type is the *Hypertrophic Arthritis*, or osteoarthritis. This may be either a local or a general process, and is characterised by a thickening at the edges of the articular cartilages or at the attachment of the ligaments, forming ridges or nodes, which become ossified and interfere with joint movements. As the process extends, the ends of the bones forming the articulation usually become sclerosed, and are much more dense than normal. With this the central portions of the articular cartilages at the points of pressure may be absorbed, representing apparently a process analogous to the decubitus seen in other parts of the body from continued pressure. In the finger joints the Heberden's nodes are the type. In the knee, elbow, hip, shoulder, or other similar joints, movements are limited by the presence of the thickened bone; at times the thickening is so great as to press upon the nerves and cause pains. It may affect also the spine and lead to actual ankylosis of the vertebræ, with severe referred pains round the body. The etiology of this disease is not known, but cold and exposure to strains or other injuries appear to be factors in it. In the treatment of this condition rest to the affected parts during the acute stage is essential, and must be secured by bandages or plaster of Paris. Hot air, hot bathing, rubbing, etc., are all of some service. The fourth type is the *Infectious Arthritis*. This is by far the most common, and includes most of the cases commonly spoken of as acute or chronic rheumatism and as septic arthritis, as well as many formerly spoken of as arthritis deformans. This type of disease results from the presence in the body of some infective organism, the symptoms being due either to the presence of the organism itself within the joint or to some toxin produced by that organism in some other part of the body. Any of the pus-producing organisms may cause it. The disease may be mild and of short duration with complete recovery, or severe with a fatal termination. One or more joints may be affected. In this type of disease the onset is usually abrupt, at times more insidious. But it is characteristic of this type that the joints that are affected become so at practically the same time; there is no tendency to progression or later involvement of other joints. This is in marked contrast to the atrophic variety. With this type the symptoms are those of an infection, and the local process is an inflammation; the joint is swollen, the capsule is thickened, but there are no changes in the bones or cartilages as a rule. The bones are of normal density, the cartilage is present and of normal thickness, and although the joints may be ankylosed, this is due to the adhesions which have formed as a part of the inflammation. The blood in the beginning and during the active stage shows an increase in the leucocytes, with usually a high percentage of hæmoglobin. In later stages the leucocytosis disappears and some anæmia develops. The lymphatic glands are enlarged, and continue so until the toxæmia is overcome. In the treatment of this class of case the general health must be maintained. At first the diet should be restricted if the disease be acute with much fever; later on the diet must be generous. Salicylates in some cases do much good in relieving pain; but it must be borne in mind that in many cases they do no good, and if they are going to relieve, benefit will be experienced very soon. They should not be continued for more than a few days. Local treatment in the early stages must consist in rest to the affected joint; later on, if definite evidence of pus, the joint must be treated on surgical principles. The fifth type is *Chronic Gout*. In this disease the essential features are the deposits of urate of soda in the soft parts about the joints, with some bone absorption adjacent to the deposits. The disease is slowly progressive, with periods of acute exacerbation. With each exacerbation the symptoms may reappear in the part previously affected, or may appear in a new region. The deposits when present may resemble or suggest the nodes seen in the hypertrophic form, but instead of being attached to the bone and being firm to pressure, they are soft, and can be moved about in the soft structures entirely without connection with the bone. Of the bone changes, the lesion is a local one, but considerable portions of a given bone may be affected, so that in the fingers or toes almost an entire phalanx may be destroyed. The process involves only a small portion of the bone at a time, gradually extending into the rest of the shaft. The shaft of the bone or the ends may be the first affected, but if the end of one bone is affected, the end of the adjacent bone is also affected, resulting in the destruction of the articulation. The etiology of this type of disease is not known.

PATHOLOGY.

The Experimental Production of Liver Necroses by the Intravenous Injection of Hæmagglutinins.

Pearce (*Journal of Medical Research*, October, 1904) gives an account of an experimental investigation on this subject, undertaken to demonstrate that red blood corpuscles, through the agency of agglutinins, become fused together and form thrombi, which, occluding the vessels of the liver, may lead to hyaline necrosis of liver cells. Hæmagglutinative sera were produced by injecting the rabbit with various organs and fluids of the dog. Sera prepared by injecting defibrinated blood, washed blood corpuscles, blood serum, bile, urine, washed and unwashed liver, pancreas, kidney, and adrenal, all possessed the power of agglutinating the red blood corpuscles of the dog *in vitro*. All, however, were not sufficiently powerful to cause red blood corpuscle thrombi in the living animal. The sera were injected under ether anæsthesia into the saphenous vein of the dog, and after varying periods of time the animals were killed with chloroform. Liver necroses were readily produced by sera obtained by injecting bile, blood, and blood-containing organs; they did not occur after the use of sera prepared by injecting urine, serum, and washed organs. The power of these several sera to produce conglutinative thrombi, and consequently necroses, varies according to the degree of agglutinating activity which they possess; while the most potent sera, judging by the reaction *in vitro* and by the extent and severity of the lesions produced, are those prepared by injecting blood and organs containing a large amount of blood, as the liver and kidney. It is noteworthy that the agglutinative power does not depend entirely on this element, for sera almost as powerful were obtained by injecting bile which contains only blood derivatives. The more powerful sera produced multiple liver lesions almost uniformly when administered in doses of $\frac{1}{1000}$ to $\frac{1}{500}$. Smaller doses may produce necroses, but are usually without effect; large doses usually cause death within a few hours. The necroses produced by the injection of these sera develop in from 24 to 48 hours. They are usually widespread, closely massed, and often confluent. The surface of the liver presents a mottled appearance; small, irregular, yellowish-brown or grayish-yellow, non-elevated areas being sharply outlined by the deeply congested, normal substance of the liver. The distribution of these lesions is almost always superficial, few necroses being found more than half a c.m. below the surface. Histological examination of these necrotic areas shows that the necrosis is hyaline in character, the cells stain poorly with eosin, thus being sharply marked off from unaltered cells. The capillaries in the midst of these areas are tightly packed with red blood corpuscles. In some the cells are loosely arranged, but in others homogeneous, more or less cylindrical cast-like masses of coalesced cells are seen. The endothelium of the capillaries is unaltered, and accumulations of endothelial cells do not occur. Fibrin does not enter into the formation of these thrombi, though the detection of finer threads of fibrin is rendered difficult by the tendency of the altered corpuscles, especially after Zenker hardening, to take the fibrin stain. Fibrin threads may occasionally be found at the periphery of the larger thrombi. The author remarks that capillary thrombi do occur in other organs, especially in the glomeruli of the kidney, the periphery of the lung, and in the adrenal. Their occurrence is, however, infrequent and unaccompanied by necrosis, except possibly in the glomeruli of the kidney. That they do not occur more frequently is probably due to the peculiarities of the circulation in the various organs. In considering the question as to whether agglutinins may be a factor in the production of liver necrosis in man, Pearce remarks that, as is well known, these lesions may be produced by the direct action of bacteria, such as B. tuberculosis, B. pestis, and the pyogenic cocci. Mallory has also shown that they may be due, especially in typhoid fever, to occlusion of the capillaries by clumps of phagocytic endothelial cells with or without associated fibrin coagula. He also showed that a strong toxin in the circulating blood may produce the so-called central necroses. There remain, however, many focal necroses which cannot be satisfactorily explained, and associated with such are frequently found capillary thrombi, described as hyaline or fibrinous. These latter are probably agglutinated red blood corpuscle thrombi and the essential element in causing the necroses with which they are associated. In attempting to bring agglutinative thrombi into relation with liver necroses in man it is necessary to explain the orgin of agglutinin. The possibility of its development as a bacterial product in the course of infectious diseases naturally suggests itself. It is significant that most of the conditions in which hyaline thrombi have been described are of bacterial etiology, or intoxications, as poisoning by ergotinin, corrosive sublimate, carbolic acid, ricin and abrin. Flexner has also described the occurrence of agglutinative thrombi in the liver lesions of eclampsia. It seems probable that the application of experimental methods may demonstrate that agglutinins may be formed in various infectious and toxic conditions in sufficient quantity to cause agglutinative (? hyaline) thrombi with the development of liver necroses and possibly other lesions.

Lipase in the Urine.

Hewlett (*Journal of Medical Research*, Vol. 11, 1904) records the result of some experimental work on pancreatic disease, and describes the following method for the qualitative and quantitative determination of lipase in the urine:—Five c.c. of urine are placed in each of three flasks. The urine in the second flask is then boiled. To the urine in the third flask are added three drops of a 1 per cent. solution of phenolphthalein, and decinormal soda solution is allowed to run in from a burette until a pink colour appears. The amount of soda solution used is read off, and a like amount is added to the first and second flasks. To each of these two flasks, the first of unboiled urine, the second of boiled urine, is then added $\frac{26}{100}$ c.c. of ethyl butyrate and $\frac{1}{10}$ c.c. of toluene, and they are placed in a thermostat at 39° C. for about 24 hours. At the end of this time each flask is taken out, and sufficient decinormal HCL is added to more than neutralise the alkali previously added by $\frac{6}{10}$ c.c. Each specimen is then shaken in a separating funnel with 50 c.c. of re-distilled ether, and the ether is separated. After adding three drops of a 1 per cent. solution of phenolphthalein to 25 c.c. of pure alcohol, the latter is brought to the neutral point. The ether extract from the separating funnel is now added to the neutralised alcohol, and its acidity is determined by titrating with decinormal KHO. Any decided difference between the acidity of the ethereal extracts of the boiled and the unboiled urine is due to the butyric acid formed by the cleavage of the ethyl butyrate, and when the difference in acidity is at all great, the odour of butyric acid can be easily recognised. This method of determining lipase is simple, and is sufficiently accurate for the amounts of lipase which occur in the urine under certain pathological conditions. The author concludes that very little, if any, lipase is present in normal urine. It appears in the urine after a variety of experimental injuries to the pancreas of the dog. It was found in greatest quantity as a result of experimental acute hæmorrhagic pancreatitis. It was also found over a period of five days after obstruction of the pancreatic duct.

PÆDIATRICS.

Gonorrhœal Salpingitis in a Child aged 6; Removal of Tubes.

Leonard Bidwell (*British Journal of Children's Diseases*, October, 1904) records this case. The girl was six years of age, and had recently come from South Africa. There was a suspicion in the parents' minds that the child had been assaulted by a kaffir, but this view was negatived by the fact that the discharge was not noticed till a month after leaving home. There was some vulvo-vaginitis. Examination was very difficult, as the parts were very tender. The case was at first thought not to be gonorrhœal, and some simple astringent was ordered. On June 25th (five days after the first visit) a painful swelling appeared in the right foot over the flexor tendon sheath. The temperature was 102°. The next day the swelling in the foot was incised, and some clear fluid evacuated. The ulceration on the vulva was then mopped out, and pus was observed to be coming from the uterus. The temperature did not fall. On June 29th the temperature rose to 103°, and the child complained of severe abdominal pain. There was a swelling in the hypogastric region to the right of the middle line, which was very tender. The diagnosis was then made of gonorrhœal salpingitis, and gonococci were found in the discharge. The child somewhat improved, till on July 5th she was in great pain, and the temperature rose to 102°. On rectal examination a swelling was felt on the left side of the pelvis, very tender to the touch. As the child continued to get worse, it was decided to operate on July 8th. The abdomen was opened in the middle line above the pubes. A dense mass was felt on either side of the pelvis, and on separating adhesions pus escaped. Both tubes were found to be full of pus, and were removed. The child made a good recovery, and went home on July 30th with the wound perfectly healed. The vaginal discharge, however, continued, and on bacteriological examination contained gonococci. The child was again put under chloroform, and as the discharge was found to be coming from the uterus, the os was dilated and the uterus curetted. Within a week the discharge had ceased, and the child when last heard of some months later was in perfect health. Dr. Geo. Carpenter, in the same number of this journal, records another case of the same nature, which ended in recovery without suppuration. He strongly emphasises the fact that the diagnosis could only have been made by a bi-manual examination of the pelvic viscera made through the rectum. Mr. Lockhart Mummery, in the same number of this journal, insists on the diagnostic value of bi-manual rectal examinations in children.

Congenital Hypertrophic Stenosis of the Pylorus.

H. S. Clogg (*Practitioner*, November, 1904) has collected, as far as possible, all the recorded cases of this disease, in which surgical measures have been resorted to as a means of cure. From an analysis of a large number of cases he finds that the disease most frequently dates from the third to the sixth week of life, vomiting being the first symptom. The child is usually born healthy, and develops well till vomiting sets in. The vomiting is at first infrequent, occurring two or three times a day, shortly after a feed. Soon it increases in frequency and severity, generally occurring within a half hour of taking food. A very characteristic feature about the vomit is the force with which the food is ejected. The infant also suffers from violent cramps in the abdomen. This sympton is not observed as early as the vomiting. During these painful cramps a definite resistance can be felt in the epigastric region, and generally peristaltic waves can be seen travelling across the abdomen from left to right. An epigastric tumour can be felt in some cases. Constipation is a marked feature. The pathology of the disease is a matter of pure speculation. The prognosis is not always bad; several undoubted cases are on record in which a cure has been effected by ordinary medical means, *i.e.*, by careful feeding and washing out of the stomach if necessary; still, in the larger proportion of severe cases surgical means must be adopted. Clogg has collected 33 cases from the literature in which the stomach has been operated on. Pylorectomy was done only once, and may be at once dismissed as being unnecessarily severe. Pyloroplasty has been done six times, with four recoveries and two deaths. Loreta's operation has been done ten times, with one death and three relapses. Gastro-enterostomy has been done 17 times, with ten deaths and seven recoveries. The choice of operation, then, rests between pyloroplasty and gastro-enterostomy. The author is in favour of gastro-enterostomy as being the more certain of the two in effecting a cure. He quotes a successful case from the August number of this journal.

Peritonitis as a Complication of Vulvo-Vaginitis in Female Children.

J. Comby (*Archiv de Méd. des Enfants*, Sept., 1901, p. 513), from the *British Journal of Children's Diseases*, Oct., 1904. The peritoneum is attacked in many different ways as a complication of vulvo-vaginitis in small children, although the complication is comparatively rare. Of the numerous cases of gonococcal peritonitis following vulvo-vaginitis, isolated cases end fatally, but the greater number recover. The author relates eight cases which he personally observed. One of these was a slight case, the others were severe, but all recovered. Although gonococci were not proved in all cases, the author believes that the connection between the vaginitis and peritonitis was sufficient clinical proof. The age of the children varied from 4 to 13 years. The peritonitis occurred as a complication, sometimes of a long-standing, sometimes of a recent, infection. The sources of infection were unknown. In the vulvo-vaginal pus the gonococci were sometimes recognised, but not in all cases. According to the author, only gonorrhœal vulvo-vaginitis leads to peritonitis, and not that caused by other organisms. In the rare autopsies on such cases marked inflammation of the omentum was found, thickened peritoneum, sero-purulent or purulent exudation in the pelvis or in the peritoneal pouches. The inflammatory changes are specially marked in the neighbourhood of the genital organs. In favourable cases, those which recover in 24 to 36 hours, there is only inflammatory irritation and not a real peritonitis. In the others all stages between this and purulent, circumscribed, and general peritonitis are found. The symptoms begin very suddenly and unexpectedly, the discharge at the time being often very slight, and inflammatory irritation absent. Sudden onset of pain and vomiting usher in the attack. There is tenderness of the whole abdomen, which may be slight and passing or severe and continuous. Abdominal distension and tympanites with constipation are frequently present, but diarrhœa is present in some cases. There is fever from the first, and the pulse is small and rapid and the breathing shallow, but hiccough and fæcal vomiting never occur. The extremities are cold and cyanotic in spite of the fever. In some cases the facies abdominalis is present. In ephemeral cases the symptoms disappear in 24 to 48 hours, in cases of medium duration in four to five days, and in the more severe cases in seven to eight days. In one case the child had two attacks with an interval of five weeks, but such recurrences are exceptional. The prognosis is good. Diagnosis must turn upon the sudden occurrence of peritonitis in a young child which is suffering from vulvo-vaginitis. Bacteriology is only of moderate importance. The treatment is that of peritonitis from other causes. The vaginal discharge should only be treated after the symptoms of peritonitis have abated.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, City Health Officer, reports:—The deaths of residents in the metropolitan boroughs, exclusive of patients in the hospitals for the insane, during January, numbered 453, which is equivalent to an annual death-rate of 10·30 per 1000 of the estimated mean population for the year. This rate is the lowest experienced in January for the past ten years. Corrected by the inclusion of the metropolitan proportion of deaths in all hospitals for the insane and benevolent asylums throughout the State, the above rate is increased to 11·09 per 1000 of the estimated population. Diarrhœal diseases caused only 66 deaths, which is less than the number registered from these causes in any January during the previous quinquennium, and is 43 per cent. less than the mean number of January deaths during the same period. Of the total number of deaths under this heading, 7 were attributed to diarrhœa, 58 to enteritis, and 1 to zymotic enteritis. The principal infectious diseases, exclusive of diarrhœa, caused 14 deaths, of which 3 were due to measles, 1 to scarlet fever, 2 to whooping-cough, 2 to diphtheria, and 6 to typhoid fever. The mortality under this head is below the average. The mortality from typhoid fever is less than has occurred in any January for the past five years. One death occurred from cerebro-spinal fever. Deaths from phthisis numbered 42, a little above the quinquennial averagefor the month (39). Respiratory diseases were less fatal than is usual for the month. Bronchitis caused 8 deaths and pneumonia 12. Cancer, with 32 deaths, was responsible for about an average mortality, but Bright's disease was more fatal than usual, causing 24 deaths. The infantile mortality was again extremely low. Only 125 deaths of children under one year of age occurred during the month, corresponding to an infantile mortality rate of 109 per 1000 births. This is the lowest rate recorded for January in the metropolis for many years, and is 30 per cent. below the quinquennial average for the month. The causes which principally contributed to infantile mortality were: diarrhœal diseases, 45 deaths; prematurity, 20 deaths; developmental diseases, 32 deaths; infectious diseases, 4 deaths. Notified attacks of infectious diseases during the month totalled 165, of which 66 were scarlet fever, 36 diphtheria, and 63 typhoid fever.

Vital Statistics.—During the quarter ended December 31 there were 3464 births (1778 males and 1686 females), equivalent to a rate of 6·78 per thousand of population; and the deaths were 1404 (709 males and 695 females), or 2·75 per thousand. These totals are respectively 331 more and 156 less than the average number registered in the December quarter during the previous five years; and the rates are respectively ·52 higher and ·35 lower than the corresponding quinquennial rates. Constitutional diseases as a whole show a high mortality, cancer and phthisis appearing in their usual serious proportions, their respective numbers being 105 and 123 for the quarter, in comparison with 94 and 130, the average numbers.

New Zealand.

Vital Statistics.—It is estimated that the birth-rate of the colony per 1000 of the population last year was 26·94, as against 26·61 in the previous year. The death-rate last year was 9·57 per 1000, as compared with 10·4 in 1903 and 10·5 in 1902. Old-age pensions show an increase of nearly £7000. The population of the colony increased by 25,028 during the year, exclusive of Maoris. The population on December 31 was estimated at 832,505.

Queensland.

Epidemic of Dengue Fever.—There has been a severe epidemic of dengue fever at Thursday Island during the latter part of January and first part of this month, greatly interfering with business, almost every person on the island having been down with it. There has only been one death, that of an infant.

Bubonic Plague.—From the 6th January to February 11th, 3383 rats and 777 mice have been destroyed; 1661 rats and 494 mice have been examined; 20 rats and 12 mice have been found infected. The cases of plague in man in Brisbane up to date number 11, and there are six remaining under treatment. One death occurred during the week ended February 11th. On the 3rd inst. a man died at Woongana, Bundaberg

Plague on the Clarence River, N.S.W.

We are able to furnish our readers with the following account of the first outbreak of plague in New South Wales outside Sydney. It occurred in the Clarence River district (population, 22,000). The Clarence debouches on the east coast of Australia in S. lat. 29°; it is navigable as far as Grafton, the capital (population, 6000), situate about 50 miles above its mouth. The chief industry is farming, and the chief products are butter, maize, and sugarcane. Communication with other parts of the State is chiefly by sea, the main northern line of railway, which runs on the high plateaux of the coastal range, being accessible only by a long coach journey. Regular trade is also carried on by sea with Brisbane, Q.

On December 30th, P.C., male, *æt.* 25, single, farmer, was suddenly attacked with acute illness; his symptoms included sharp pain in the right groin, where a swelling rapidly developed. An operation was considered necessary, and was begun on January 1st at a private hospital at Grafton, whither he had been removed. The incision revealed a swollen and inflamed gland; this suggested plague. The gland was excised, and after some delay a bacillus which morphologically resembled *B. pestis* was seen in smear preparations made from it on the spot. The case was first notified to the Department of Public Health late in the afternoon of January 4th. Departure of staff officers was necessarily delayed until the next afternoon, when the Assistant Medical Officer of the Government (Dr. R. J. Millard, M.B., D.P.H.), was despatched in charge. He was accompanied by an assistant from the micro-biological laboratory, by a sanitary inspector of long experience with plague work, and by a trustworthy rat-catcher. The party arrived at Grafton on the morning of January 7th.

After having confirmed the provisional diagnosis, Dr. Millard proceeded at once to Ulmarra, a village on the river, about nine miles below Grafton, where the patient had lived, and in the course of his general survey he enquired into the circumstances under which several cases of sudden and fatal illness had occurred at about the same time as P.C.'s. He found that there had been five such cases; four of them had ended in death, while the fifth patient, V.P., a lad of 17, was convalescent. All six had been attacked at dates between December 14th and January 1st, but the latter five of them almost at the same time, namely, between December 29th and January 1st. In all the onset of illness had been abrupt; all had had high fever; as to glandular swellings, three had had buboes, one had had no bubo, while no note on this point was available concerning the other two. The duration of illness in the fatal cases had been very short, one patient having died after two, the other three after three days' illness; in two of them, at least, the end had come suddenly and unexpectedly (syncope). These deaths had been medically certified as due to "heat," to "heat and hernia," to "peritonitis," and to "heart disease, syncope, and influenza"; but on reviewing the group, and on taking cognisance of the ascertained cause of P.C.'s illness, it appeared highly probable that all had been caused by plague. This opinion received considerable support from examination of material taken from the suppurating bubo which V.P. showed on the eleventh day after attack, and which was transmitted to Sydney. There the morphological, cultural, and inoculation tests applied to it in the laboratories of the Department all proved positive. This result was in part fortunate, no doubt; nevertheless, it reflects very favourably on the skill of all concerned in an attempt which, it will be seen, was surrounded with difficulty, and under the circumstances much less likely to succeed than to fail.

The six patients had inhabited four dwellings. These were farms within moderate distances of Ulmarra and of each other, except one of them, which was six miles away, and in a different direction from the remainder. But enquiry showed that two premises only had been the source of infection, namely, P.C.'s and the P.'s. Thus, E.W. had sat in P.C.'s barn during an afternoon on the third day before attack; and while on the one hand there was a clear history of "a bucketful" of sick and dead rats having been taken from this barn somewhere about the second (?) week in December, on the other hand search of E.W.'s dwelling revealed no traces at all of infestation with rats, nor any suspicious circumstance. So, also, E.C. had visited the P. family (three of whom suffered, while two died) frequently, and was at their house four days and again one day before his attack; but his own house, several miles away, was quite new, and on search revealed nothing at all suspicious. At the P.'s no rats were found at the late date on which search first became possible. But the occurrence of three cases among the members of that household showed that the infection was present there, although its source was not detected; and that it was a local, not a personal infection, was shown by the attack of E.C., whose last visit there was paid before the first of the household had fallen ill. The premises swarmed with fleas.

The method of management was guided by the ætiology of plague as ascertained at Sydney from the outbreaks of 1900-2-3-4. It included the following points:—In the first place (January 5th), movement of fodder and grain from the infected municipality—a very large area—and also between premises within the municipality, was prohibited absolutely as regards the former; as regards grain, conditionally on its being put on board vessels for Sydney direct, such vessels to discharge in the stream, under inspection, on arrival, and to be fumigated empty and searched for rats before being allowed to go alongside. By Order in Council, authority was given to extend this prohibition to any other area or premises which might subsequently be ascertained to be infected. All vessels trading between the Clarence River and Sydney were directed to discharge in the stream on their first arrival at Sydney after infection of the district had become known, and afterwards to be treated as above mentioned. They were thus dealt with successively, and no infected rodent was found among the three or four which alone each vessel yielded, the owners having been very careful at all times during the past four years to keep them free from rats. Secondly, a proclamation warning the inhabitants of this district that unusual sickness or unusual mortality among rats betokened plague, and must be at once reported by all and sundry, was posted freely, with a view to proceedings at common law against any person who should fail to report such facts if within his knowledge. Thirdly, the pamphlet to householders, in which the dependence of plague in man on plague in rats, and the need for destroying the latter was inculcated, and which was first issued by the Department on March 1st, 1900 (case 3), was forwarded in large numbers to the several local authorities for distribution. The embargo on fodder and grain was aimed at the special liability of these articles (*a*) to carry rats concealed and (*b*) to attract rats to vessels; it had no reference to their infection, otherwise than by presence of diseased rats in them, and, consequently, no similar embargo was laid on the removal of household goods by those who chose to flee from Ulmarra. Patients were to be (and were) taken up the river to Grafton Hospital. No indigenous cases had occurred in the town; but while, on the one hand, it was known that the infection would not spread from bubonic and septicæmic cases isolated under supervision, on the other this was the only place at which the very careful treatment and watching which plague patients require, if they are to have a fair chance of recovery, could be given them.

The inhabitants were thus and in other ways warned of the source of danger, and instructed in what they could do towards avoiding it. At the same time the search for plague rats was begun by the staff, which was increased by addition of nurses for the sick, and of labourers under experienced foremen, as the area of work expanded. There was general agreement between many different witnesses that at several wharves on the river, and at several farms, there had been an unusual prevalence of rats, or at all events that rats had become visible in unusual numbers, about the beginning of December, and that sick rats and large numbers of dead rats had been found about three weeks afterwards; further, that they had become very scarce, or had even disappeared, by about the beginning of January. Beyond this, little information could be gathered, and very little that was exact. The first plague rat which was identified was found in Ulmarra village on January 8th, and in course of cleansing the houses of this village plague rats were subsequently identified on several different premises. An hotel (the only house it was thought necessary to close until it should have been cleansed) yielded 51 carcases, of which 39 were infected; but usually only three or four were discovered, and experience as to this point, and as to their irregular distribution among houses, was very similar to that met with in Sydney. The apparently capricious incidence of the disease on man was also quite the same. Outside the village, where the farms were separated from each other by distances of one, two, or three or more miles, isolated spots of infection were found. To these it may be that the rats had been carried *per saltum;* no evidence of travel for long distances over the ground has yet been got. The furthest point at which a plague rat has been found so far was nine miles from Ulmarra, though still within the municipality. It was only at the beginning of February that one or two plague rats began to be found in maize fields and cane brakes, a circumstance thought to forecast much difficulty in arresting the epizoötic.

Six further cases occurred between January 7th and 27th. One happened (in association with plague rats) at Cowper, nine or ten miles down the river, one in a teamster on the road, who had been infected at Ulmarra, and four at Ulmarra or in its immediate neighbourhood. Three of the six died, including the teamster, who, however, did not come under treatment, but succumbed shortly after reaching his home at South Grafton. At one house, which yielded two cases, plague rats were identified immediately before either patient had fallen ill.

This account, which we have reason to believe substantially correct, although it may probably be added to at a later date (for transport of infected rats had been possible long before the alarm was sounded), serves to illustrate the methods by which plague is confidently handled in New South Wales; and although it is yet too soon to suggest that this outbreak has been summarily stamped out locally, yet there is sufficient evidence to warrant an opinion that it has at least been jugulated. Twenty days have elapsed since the date of the last attack in man, but only four days since the last plague rat was taken. The danger still exists, therefore; but we understand that the Department relies with hope on the fact that plague is usually contracted from rats infesting inhabited premises, and on the belief that everyone in the affected district is now on the *qui vive*. Doubtless much has been done already by the inhabitants to keep rats outside the houses and to destroy them and their harbourage. The result so far is a fair subject for congratulation; we may be sure it was not attained without very strenuous exertion on the part of the whole Department. Much, however, must have depended, and in the future of this outbreak must continue to depend, on the executive energy, discretion, perseverance and firmness shown by Dr. Millard, the medical officer in charge on the spot.

It is necessary to add here a word on certain pronouncements by the editors of the morning press of Sydney on the transfer of plague patients from an infected district to a hospital (though the only available hospital) in an uninfected town. One editor expressed the opinion that this showed pointedly how "familiarity (with the disease) breeds contempt"; the other that this course resulted from application of the lessons learned from experience at Sydney. One of these statements was foolish. The other was harmless; but both were incorrect, and inconsistent with facts recorded long ago in the columns of both journals. The Department at no time entertained the common opinion that cases of bubonic and septicæmic plague were infectious; and although contacts with the first three or four sufferers in the first outbreak of 1900 were segregated while the Board of Health was "feeling its feet," at a time of very great popular excitement and alarm the Board—or, to be exact, its President, Dr. Ashburton Thompson—did on March 2nd, 1900 (case 4), announce that for the future only the sick would be removed. This intention was instantly overruled by the Government of the day, doubtless for reasons of policy; at all events the direction given by it to remove all—even remote—contacts was in accordance with popular feeling. Since the date referred to the public have learned their lesson, nor, as it cost them an unnecessary £100,000 at least, are they likely to forget it. That is all very well, and no more need be said about it; but when their own blunders are coolly ascribed by them to that very body whose function it was to guide them away from error, and which actually did attempt so to guide them, it is proper to record a protest, and to furnish a correction, in these columns.

Report of the Board of Health on a Third Outbreak of Plague at Sydney, 1903.

By J. Ashburton Thompson, M.D., D.P.H.,
President, Chief Medical Officer of the Government.

(Abstract.)

The last case of the preceding outbreak of the plague in Sydney occurred on June 12th, 1902; the last plague rat was taken on July 14th, 1902. The present report deals with an outbreak of which the first evidence was got on May 12th, 1903, and the last on August 15th, 1903. It consisted in occurrence of a case of plague in man, in which the date of attack was June 17th, and of one other in which the date of attack was July 2nd; both of these persons recovered. It also reviews the plague-free period which preceded this third outbreak, as well as a part of the plague-free period which followed it. The account thus relates to the year and a half which lay between July 15th, 1902, and December 31st, 1903.

For descriptive purposes this term is divided conveniently into three periods, namely (*a*) from July 15th, 1902, to April 30th, 1903, being the preliminary plague-free period; (*b*) from May 1st, 1903, to August 15th, 1903, being the epizoötic period;* and (*c*) from August 16th to December 31st, 1903, comprising a large part of the ensuing plague-free period.

During the whole of the first term from July 15th, 1902, to April 30th, 1903, 31,075 rodents were taken, of which 17,160 were examined in the laboratory; and they had been taken in neighbourhoods selected in accordance with the experience which had taught that recurrent plague would probably first betray itself in them. None of the 17,160 were infected with plague. It appeared, then, on April 30th, 1903, to be probable that Sydney had for eight months and a half been really free from plague in its rats, as it certainly had been free from plague in man.

The second period, or that during which epizoötic plague was again observed, dated from May 1st to August 15th. On May 8th a firm of produce merchants trading at 153 Sussex-street (on the western, or water, side) made a communication to this Department, in consequence of which rat-catchers were told off to watch the premises. They succeeded in catching one rat on the night of the 8th, and another on the 10th; both were healthy. On May 12th three carcases of rats were collected, of which one was putrid, one was healthy, and one (of a rat which had been killed by a dog in his presence) was infected with plague. On May 13th two more carcases were delivered at the laboratory, both of which were infected. As soon as recurrence of infection among the rats had been thus discovered, the strength of the departmental and of the city rat-staffs was increased; and the latter was then directed to attach addresses to its takes, and to deliver all carcases at the Microbiological Laboratory. The general plan of action in relation to search, and to treatment of premises on which infected rodents were discovered, was the following:—While 153 Sussex-street and some adjacent buildings were being examined by departmental officers, a special gang of men, which included a plasterer, was put at disposal of the Senior Medical Officer of Health by the Harbour Trust, which, under his direction and that of the Trust's engineer, went systematically through the Trust's property on the water side of that street. A similar gang was reorganised by the local authority for the city, which went through other properties in that immediate neighbourhood on the eastern side of the street, as well as elsewhere within the city. The plasterer stopped the rat-holes, which were very numerous in the old walls of some premises. In this way a great deal of work was rapidly done, consisting primarily in moving and re-stacking stocks of fodder and produce, examining them for live or dead rats, cleansing where necessary, and stopping rat-holes permanently; secondarily, in serving notices on the Harbour Trust and on other owners requiring them to defend permanent openings with wire-netting, to repair casual openings, to remove wood flooring in basements, and to substitute concrete for it. When either of the intelligence staffs delivered a plague rat at the laboratory the information (if it concerned premises within the city) was communicated to the Senior Medical Officer of Health, who at once entered the premises on which the animal had been taken, and the premises on each side of them as well. He also concentrated his intelligence staff in the neighbourhood. If it concerned premises outside the city, similar steps were taken by the departmental staff. Dr. Thompson considers that by these thorough measures the spread of the epizoötic was interrupted, delayed, and ultimately checked, and that development of an epidemic was prevented; for at Sydney epidemic plague has always been directly dependent on epizoötic plague. As regards rodents taken during this second period, May 1st to August 15th, 8695 rats and 5976 mice were examined at the laboratory. Of the total 14,671 rodents, 111 rats and 50 mice were ascertained to be infected with plague. The last plague rodent was brought in on August 15th.

---

*Thus extended by 11 days for simplification of the analysis, in view of the probability that the epizoötic had begun some unascertainable number of days before the date of its discovery.

During the third period, from August 16th to December 31st, 1903, the number of rodents collected was 8485 rats and 4904 mice, total 13,389. All were examined in the laboratory, and none were affected. Thus at the end of 1903 it once more appeared that Sydney was free from epizoötic plague, and that it had been so for four months and a half.

Dr. Thompson directs attention to the extremely small proportion borne by the number of rodents in which plague was identified to the total rodents taken. The gross percentage of plague rodents identified was no more than 1·27 per cent. for rats, and 0·83 per cent. for mice; and the smallness of these percentages is accentuated by the fact that of the total 161 plague-infected rodents, no less than 78 were collected from one premises (a secondary focus—Gray's stables, Waterloo. If this number be subtracted from the total, then it appears that only 83 plague rodents were identified in the whole of the infected district which included the original focus and all areas (except Waterloo) infected from it; so that the percentage of identified plague rodents to the total taken by the intelligence staffs falls to ·55 per cent. for rats, for mice to ·58 per cent., and the gross percentage having been ·56 per cent. But there are several considerations which show that such comparisons, if they are made with a view to gauging the severity of an epizoötic, are illusory. The most important of them is that the only methods practically available to rat-catchers tend to ensure capture of healthy rats for the most part. Those alone are taken in traps (as a rule) which are in good health, and which enter them in course of their active search for food, or, if infected, have not reached a stage of illness at which pathological signs have appeared. Hence the percentage of identified plague rats thus calculated must always be extremely small. An additional reason can be assigned for the low percentage which our accounts show. A considerable number of carcases have been too putrid for useful bacteriological examination, but in which there was every reason to think plague had been the cause of death; and were these counted as plague rats the percentage would be increased. The term "plague rat" should not be applied to any carcase in which the disease has not been identified; nor should the term "identified" be employed unless the presence of *B. pestis* has been bacteriologically demonstrated.

The total 161 plague rodents were taken on 25 separate premises (including the barque "Alsterschwan"), between May 12th and August 15th. If these 25 infected places are considered in detail after examination of the local conditions in the light of previous experience, it appears that they may be divided into four clearly-distinguishable groups. Thus it is possible to distinguish an original focus, spread from it in its immediate neighbourhood by contiguity, and infection *per saltum*, of at least three distant points, namely, Woolloomooloo Bay, Miller's Point, and the stables at Waterloo. The latter premises afford a further instance of the manner in which secondary foci may become established which is on all-fours with several previously described, although it was not followed by any epidemic.

The course of the epizoötic just described was marked by occurrence of two cases of plague in man. The first case was a male, aged 15, apprentice at a printer's; residence, View-street, Annandale; place of employment at 44 Pitt-street, city. Notified on June 20th, and admitted to hospital; discharged August 20th. No direct connection with plague rats was established in this case; but the circumstances appeared to exclude every other source of infection as well. In other words, it is manifest that some circumstance has remained undiscovered which was of determinative character in relation to attack.

The second case occurred a fortnight later, in a male, *æt.* 20, unmarried, master tinsmith. Residence, Summer Hill; place of employment, 125 Sussex-street, Darling Harbour. Notified July 4th; admitted to hospital July 5th; dicharged August 5th. In this instance direct connection with rats affected by disease was clear, although plague was not identified in any of the carcases because they were delivered in too putrid a state; two of them were found on the roof of a little glass-enclosed office which was erected in one corner of the large workshop. But on July 8th plague was identified in a rat and in a mouse taken at No. 125, which was structurally the same building as No. 123.

A third case of plague came to notice, which occurred on a coasting steamer; the place of infection could not be certainly indicated, but as the balance of evidence pointed strongly to Brisbane, it has not been debited to Sydney.

During the epizoötic term, plague rats were discovered on the barque "Alsterschwan," which had arrived from Buenos Ayres. This was the second vessel (only) on which plague rats have been observed during the four years 1900-3, and a full account of the movements of the vessel are recorded.

A large number of rats and mice were caught at Gray's stables, Waterloo. Analysis of the records relating to discovery of infected rodents on the 23 remaining premises shows that 15 of them yielded plague rats on a single day, namely, the day of discovery and of report; 14 of them also yielded but a single specimen. The other, which was a large factory where spices, rice, maize, mustard, etc., were manufactured or packed, yielded four on the one day, and no more were found during the several subsequent days over which the search extended. Of these 15 places, 6 were wharves or piers, 2 were pieces of vacant land, 2 were streets or lanes. Of the other five, one was another factory for oatmeal, maize, etc., one was a soapworks, and three were produce stores on the water side of Sussex-street.

The eight places from which plague rodents were collected on more than one day yielded them during terms which extended to 2, 4, 12, 16, and 52 days. Seven of them were produce stores, situated on the water side of Sussex-street; the eighth was a wharf abutting on that street. In the last-mentioned case (52 days) a long interval of 47 days, during which 11 plague-free rats and 36 plague-free mice were taken on 14 days, pointed to reinfection of the premises.

The two patients were lodged in one half of a small ward in the infectious diseases division of the Coast Hospital, of which the other half continued to be occupied by persons suffering from other forms of disease. The rooms in which they had lain ill at home were disinfected in usual ways as a measure of precaution, although experience has shown that such patients never communicate infection to their surroundings.

Appended to this report are tables showing the way in which plague rodents appeared among rodents captured on infected premises from which plague-infected rodents were taken on more than one day; also a copy of the Model By-laws under section 130 of the "Municipalities Act, 1897," for the better prevention of the spread of plague, etc.; and a table showing the places at which, and the first and last dates on which, plague rats were taken.

PRACTICES FOR SALE.

N.S.W.: Excellent Practice, close to Sydney. Cash take, £600. Appts., £164. Price, £200. Vendor has good house 9 rooms, stables, &c., rent £60. One of the nicest towns and practices in N.S.W.

N.S.W.: Prac. in which £500 yearly can be saved. Price for prac., furn., 12 rooms, 3 horses, everything, £400.

Queensland: Unopp. Prac. with Hosp. appt. Cash take last 18 years, £900. Appts., £410. Price, £200. Of its kind it is the best in Queensland.

S.A.: A splendid opening is available, In two or three years time would probably be worth £1000.

S.A.: Prac. in Adelaide, which for 26 years has averaged £2000 cash annually. This is a general practice, also not a personal one. Good introduction.

N.Z.—Prac. near Auckland, worth £1500. Price, £600 cash; no reduction. Prac. is *bona fide*, and can be recommended. Many others in N.Z.

MR. F. W. LOXTON, MEDICAL AGENT,
16 O'Connell-street, Sydney.—[ADVT.]

A LADY DOCTOR leaving for Europe about March or April wishes to travel with a Patient. Apply M.D., care *A.M. Gazette*, 121 Bathurst-street, Sydney.

Regulations for the Entry of Surgeons for Temporary Service in the Medical Department of the Royal Navy.

WE have been requested to publish the following regulations for the entry of surgeons for temporary service in the medical department of the Royal Navy. His Excellency the Naval Commander-in-Chief on the Australian station is anxious that definite steps should be taken at an early date to enrol medical men who would be prepared to act as surgeons in the medical department of the Royal Navy on the Australian station in the event of the outbreak of war. Medical men who may be prepared to enter the service on these conditions are requested to forward their names to the hon. secretary of New South Wales Branch of the B.M.A. as soon as possible; in any case not later than March 31st.

QUALIFICATIONS.

To be registered under the Medical Act as qualified to practise medicine and surgery in Great Britain and Ireland.

To produce certificates of good character.

To be reported physically fit after medical examination.

Age not to exceed 40 years.

PAY AND ALLOWANCES.

FULL PAY.		HALF PAY.	
A day.	A year.	A day.	A year.
22s 0d	£401 10s 0d.	10s.	£182 10s 0d.

Note.—Half pay is for sickness and extra leave only.

To be granted 30 days' advance of pay on joining a ship after appointment.

To receive the same allowances as are payable to permanent officers of their rank.

Lodging money at the rate of £50 a year is usually allowed when employed on shore without quarters in the United Kingdom, and £24 a year in lieu of rations. In cases, however, of temporary employment on shore, the lodging and provision allowances will be at the rate of 3s 6d and 1s 6d per day respectively.

If quarters are provided in a medical establishment, an allowance is granted in lieu of provisions, for self and servant, and for fuel and lights at the rate of £39 a year in the United Kingdom, and £108 a year abroad.

UNIFORM.

Each surgeon to provide himself as follows:—

(1.) Frock coat, waistcoat, and trousers.
(2.) Undress coat.
(3.) Uniform cap.
(4.) Mess jacket and waistcoat.
(5.) Sword and undress belt.

All as specified in the uniform regulations.

To cover the above each officer accepted for service will receive an equipment allowance of £20 (payable on the officer's being called up for active service).

The following instruments must be provided by the surgeon:—

A pocket case of instruments.
A stethoscope.
Three clinical thermometers.

MESSING.

Surgeons will be allowed, when attached to ships in commission, the ordinary ship's rations; but will have to pay about 2s a day towards the maintenance of their mess as ward-room officers.

PENSIONS FOR WOUNDS AND TO WIDOWS, &c.*

In the event of surgeons engaged for temporary service being wounded in His Majesty's service, gratuities or pensions, varying in amount according to the injuries sustained, will be granted, on the basis of the awards in similar cases of naval officers.

Should temporary service surgeons be killed in action, die within six months of wounds received in action, or meet their death by acts of the enemy, the following pensions and allowances will be granted to their widows, children, etc. :—

	Widows.		Children up to the age of 18 for boys, and 21 for girls.		Widowed mothers dependent on their sons, if the latter left no widows or children.	Orphan sisters dependent on their brothers, if the latter left no mothers, widows, or children
	Killed in action.	Drowned, etc., by acts of the Enemy.	Killed in action.	Drowned, etc., by acts of the Enemy.	Killed or drowned, or suffered violent death by acts of the Enemy.	Killed or drowned, or suffered violent death by acts of the Enemy.
	£	£	£	£	£	£
Surgeon	80	65	12 to 16	10 to 14	50	50

In addition to the foregoing pensions, the widows and children of officers killed in action will be granted the following gratuities :—

Widows—One year's pay of their husband's corresponding rank in the Royal Navy.

Each unmarried child, under the age of 21, one-third of the gratuity paid to the widow.

These pensions and gratuities can be given only in cases of injury or death caused by acts of the enemy, and not on account of injury, disability, or death, which may result from carrying on the ordinary duties of the service.

CONDITIONS OF SERVICE.

To engage for six months certain, but the liability to serve will be limited to five years.

To serve when and where required from the date of signing the declaration.

To be liable to immediate discharge for misconduct or incompetency.

To rank with, but after, surgeons in the permanent service.

To be under the general rules of the service as regards discipline, etc.

To receive two calendar months' notice of services being no longer required.

To be granted a gratuity of two calendar months' pay on discharge, if not discharged for misconduct or incompetency.

Voluntary resignation of appointment will be allowed subject to the convenience of the service, but the gratuity of two calendar months' pay on discharge will be thereby forfeited.

The following form of Declaration and of Schedule of Qualifications will be required from candidates :—

Christian and Surname at full length. } I..............................
....
a Candidate for temporary service as a surgeon in the Royal Navy, do hereby engage for general service and attest my readiness to proceed on duty abroad whenever required to do so, upon the terms specified in these regulations.

I declare—1st. That I am........years of age, and that I was born on...................18......, at
....

2nd. That I am† ....‡..................

3rd. That I labour under no mental or constitutional disease or weakness, nor any other imperfection or disability which can interfere with the most efficient discharge of the duties of a medical officer in any climate.

4th. That I am registered under the Medical Act in force as duly qualified professionally, and that I hold the following diplomas, etc., in medicine and surgery.

Signature ....
Date ....

N.B.—A mis-statement by a Candidate will invalidate any subsequent appointment, and cause forfeiture of all privileges for services rendered.

Medical School..............................
‡ *Present Address*..............................
¶ *Permanent Address of Parents or near Relative* } ....

NOTE.—The Certificates of Birth (*not of Baptism*) or Declaration thereof made before a Magistrate, of Medical Registration and of Character (*up to date*) must accompany this Declaration.

By Command of their Lordships,

ADMIRALTY.

---

* Unmarried candidates will be preferred.

†Here insert "of pure Europeon descent and the son either (*a*) of natural born British subjects, or (*b*) of parents naturalised in the United Kingdom." NOTE.—If any doubt should arise upon this question the burden of clear proof that he is qualified must rest upon the candidate himself.

‡Any change of address to be notified to the Director-General, Medical Department of the Navy, Admiralty, London.

¶ This address is required for communications during an Officer's absence from England, when on service.

OBITUARY.

RALPH HODGSON, M.R.C.S. (Eng.), L.R.C.P., L.S.A. (Lond.), Sydney.

Dr. Ralph Hodgson died suddenly, from heart disease, on January 18th, at Neutral Bay, in his 51st year. He was a son of the late Captain C. G. Hodgson, of the Grenadier Guards. He took considerable interest in politics, and was a member of the Liberal and Reform League. He was also a prominent figure in chess circles, and was at one time president of the School of Arts Chess Club. As a marine motorist Dr. Hodgson was successful, several prizes having been won by him at aquatic carnivals. The deceased leaves a widow and one son, and also a brother, Mr. C. G. Hodgson, president of the Dental Board.

HOSPITAL INTELLIGENCE.

Sydney Hospital.—At the annual meeting of the Sydney Hospital, held last month, the report, which was read, stated that for the 12 months ended December 31st last 32,188 persons had received medical or surgical relief at the main institution and its branches. There were treated 4505 in-patients, 16,549 out-patients, and 11,134 casualty patients. In the two latter departments more patients were treated than in the two other general metropolitan hospitals together. The hospital had maintained its previous sound financial position, the income being sufficient to meet all expenditure. It was satisfactory to note that the subscriptions showed an increase over those received in the preceding year. During the period 2856 operations had been performed, being an increase of 228 as compared with 1903. The results all through showed that the highest standard of asepsis was maintained, and would bear comparison with the results obtained in the hospitals anywhere. The report of the work done in the pathological department gave further proof of the great value of that department to the hospital generally. The report also paid a tribute to the excellent work performed by the superintendent, the resident and honorary medical officers, and by the matron and nursing staff. The following directors were elected :—The Hon. R. J. Black, M.L.C., the Hon. Sir F. B. Suttor, M.L.C., Mr. G. N. Griffiths, Mr. James Ashton, M.L.A., and Mr. John Stinson.

Bathurst Hospital, N.S.W.—At the 62nd annual meeting of the Bathurst Hospital the report showed that the hospital, notwithstanding thegreat depression, had had a successful year, the receipts being in advance of last year's. There had been 399 patients treated, at a cost of £1 5s 11d per bed per patient. The balance-sheet showed receipts £1530, and expenditure in connection with hospital maintenance £1357. During the year a new operating theatre had been erected, and other improvements, at a cost of £1262, £1000 of which had been contributed by the Government.

Lismore Hospital, N.S.W.—At the annual meeting of the Lismore Hospital satisfactory reports were presented. The regulation providing for the payment for private wards was altered, providing that instead of three guineas weekly, the patients after the first week should pay two guineas. The annual report referred to the heavy work of the year in the erection, opening, and equipping of the new hospital at a cost of £2971. The medical officer's report stated that 268 patients had been treated, with a death-rate of 7·5 per cent. There had been an increase of 16 patients over the previous year, with a decrease in the death-rate of 3·5 per cent. Seventy operations had been performed. The receipts for the year amounted to £3394. There was a credit balance of £359.

Infectious Diseases Hospital, Melbourne.—Since the opening of this hospital, four months ago, 111 patients have been treated there, and the deaths have numbered seven. At the meeting of the hospital committee last month Dr. Allen reported that only 11 diphtheria patients were at present in the hospital, although the Health Board's report showed that 22 fresh cases had arisen in the metropolitan area. The hospital, therefore, had received probably only two or three of those cases. Dr. Allen suggested that typhoid fever patients should be admitted to the institution.

Queen Victoria Homes for Consumptives, N.S.W.—At the monthly meeting of the house committee of the Queen Victoria Sanatorium, Wentworth Falls, and the Home for Consumptives at Thirlmere, accounts were presented and passed for payment amounting to £203 16s 8d. The acting medical superintendent's report at the sanatorium showed that there were 21 patients in residence. During the month one patient had been admitted and one patient discharged ; the majority of patients were progressing satisfactorily. The matron's report (Thirlmere) showed that there were 40 patients in the home. During the month 10 had been admitted and 9 had been discharged.

Balmain Hospital, Sydney.—The 20th annual report of the Balmain Hospital showed that 320 patients were admitted during the year, while 18 remained in the hospital from 1903, making a total of 338 treated, as compared with 339 during the previous year. The outdoor patients numbered 2426, as compared with 2395 in 1903. The average daily number in the hospital was 14. The report referred to the changes which had occurred in regard to the medical staff, and paid a tribute to the whole of the medical gentlemen interested for the manner in which they assisted the hospital, their first aim being to see that the patients did not suffer. Everything was now working smoothly in this department. The committee regretted the death of Dr. Finlay. The balance-sheet showed that the receipts, with balance from the previous year, amounted to £1493 6s 5d, while the expenditure was £1231 12s 4d. The chairman, in moving the adoption of the report, referred to the dispute with the medical officers, and then went on to say that the hospital was costing £100 per month, and in the near future, with greater demands upon them, would entail a larger expenditure. The Board of Health had informed him that the hospital would have to make some provision for the reception of typhoid patients, and there was no doubt they would have to do this. To meet the expenditure involved they would have to raise additional funds. There were now 29 beds to keep up, and when times improved, and more factories were working, there would probably be additional calls on their accommodation for accident cases, so that their income would have to be increased.

Western Suburbs Cottage Hospital, N.S.W.—The annual report of the Western Suburbs Cottage Hospital showed that 247 patients were admitted during the year, and 100 casualty cases treated. The cost per patient per annum was £49 16s. Cordial acknowledgment of the work of the medical and nursing staffs was made, and thanks were accorded the residents of the western suburbs who had continued substantial financial support to the institution. It was announced that for the first time in the history of the hospital two legacies had been received, from the estates of the late Sir Wm. Macleay (£50) and the late Sir Daniel Cooper (£25). The financial statement showed that the income had exceeded the expenditure by £127, and the credit balance stood at £1930.

Manly Cottage Hospital, N.S.W.—A new ward in the Manly Cottage Hospital was opened last month by Mr. Dugald Thomson, M.P. The president of the hospital gave a brief history of the institution, and stated that the new wing would provide accommodation for five extra beds. The cost of the building was £475. Dr. Arthur referred to the fact that the hospital committee had never made application to the Government for financial assistance outside the ordinary subsidy. The hon. secretary stated that during the 14 years the hospital had been in existence £7000 had been spent in maintenance, and over 3000 patients had been admitted. A collection was taken up, and a sum of £36 was realised.

Royal North Shore Hospital, N.S.W.—At the annual meeting of the contributors of the Royal North Shore Hospital held last month the report showed that the accommodation, especially in the female ward, had failed to meet the demands made upon it, necessitating delay in admission in several cases. There had been an increase over last year of 119 patients treated, the total number being 612. Of these, 423 were discharged cured, 79 relieved, 32 unrelieved, and 35 died, leaving 43 under treatment at the end of the year. The average daily number resident had been 43. A slight excess in income over expenditure was shown in the working account, and donations and subscriptions had also improved ; but as there is imperative need for an additional female ward, heavy expenditure will have to be met in the near future.

MEDICAL NOTES.

Charitable Donations and Bequests.—Some months ago an anonymous contribution of £2000 was received towards the cost of erecting new buildings for the Royal Alexandra Hospital for Children, Sydney. The hon. treasurer, Mr. J. St. Vincent Welch, stated that at his urgent request the donor (Miss Eadith Walker, who has previously given large sums) had allowed him to divulge the source of the gift. The hon. treasurer stated that the reason for asking Miss Walker's permission was that he had found that the generous donor's name being withheld prevented certain wealthy and benevolent people being approached in the interests of the hospital. Mr. Frederick Campbell, president of the Queanbeyan Hospital for many years, has given a donation of £300 to the institution for the purpose of improving the buildings.

Hospital Saturday Fund.—At a meeting of the board of directors of the Hospital Saturday Fund held last month a communication was received from the president of the Women's Progressive Assocation regarding the non-appointment of women doctors to the hon. medical staffs of Sydney and Royal Prince Alfred Hospitals. The board resolved that the matter was quite outside the scope of the association. Information was requested by the Hospitals Aid Association of Brisbane, Queensland, respecting the methods of carrying out a general collection, and the request was complied with. The Lord Mayor of Sydney wrote accepting office as president of the association. The date of the twelfth annual outdoor collection in the city and suburbs was fixed for the first Saturday in May next.

An Inebriates' Retreat.—The question of the establishment of an inebriates' retreat has been under the consideration of the Victorian State Cabinet. The Chief Secretary states that the Cabinet had definitely decided to proceed with the project, but it had not yet determined whether a special institution would be erected or a suitable building taken on lease for the purpose. The necessary regulations were being prepared for the management of the institution.

PERSONAL ITEMS.

The Hon. Dr. Mackellar, M.L.C., has recently returned to London after a three months' tour in Austria, Germany, and France. He presented to Mr. Joseph Chamberlain a copy of the first volume of the report of the Royal Commission on the decline in the birth rate in New South Wales.

Miss Creal, the matron of Sydney Hospital, who was granted ten months' leave of absence to enable her to visit the leading hospitals in England and America, returned from Vancouver on January 30th. At the annual meeting of the subscribers to the Sydney Hospital, Sir Arthur Renwick, on behalf of the committee, extended a hearty welcome to her. He also congratulated Sister Powell, the acting matron, for the manner in which she had carried out the duties during Miss Creal's absence.

Dr. H. R. Letcher has decided to leave Kadina, S.A., having taken over a large practice in another State, and was on February 6th presented with a morocco travelling bag, suitably inscribed, by the manager and officers of the Wallaroo Mines, South Australia. The same evening Dr. Letcher was entertained at a gathering by A.O.F., and subsequently at a banquet at Kadina.

His Majesty the King has approved of the selection and admission of Lieutenant-Colonel Reuter E. Roth, D.S.O., P.M.O., as a Knight of Grace of the Order of the Hospital of St. John of Jerusalem in England.

A large meeting took place in the School of Arts, Coonamble, last month to bid good-bye to Dr. Herbert Sheldon on the eve of his departure for Granville. The Mayor presided at a banquet. Dr. Sheldon was one of the medical officers to the hospital, and had occupied a number of positions in connection with different institutions in the town.

Dr. H. L. Harris, of Tamworth, has been appointed a member of the Licensing Bench for that town.

Dr. A. E. Irwin, late of Singleton, N.S.W., has been admitted a Fellow of the Royal College of Surgeons of Edinburgh.

Dr. Davis, of Dunedin, returned from England early last month, and has resumed practice.

Dr. Fyffe, of Wellington, and Dr. Christie, of Wanganui, returned to the colony from abroad by the "Monowai" on 28th December.

Dr. and Mrs. Anson, of Wellington, with their daughter, arrived from London by the "Kaikoura" on December 25th.

Dr. W. B. Norris has been formally appointed by the Governor-in-Council as Chairman of the Melbourne Board of Public Health and Medical Inspector under the Health Act. The appointment dates from 1st January, and the salary is fixed at £800 per annum.

The will of the late Dr. D. A. Gresswell, Chairman of the Board of Public Health, who died on December 10th, has been lodged for probate. He left real estate valued at £2000, and personal at £458, to his widow, who is appointed sole executrix under the will executed on November 24th last.

Dr. Hamlyn Harris, who has been on a visit to Fiji, returned to Brisbane by the R.M.S. "Aorangi." He proceeded to Toowoomba, Queensland.

Dr. Davenport, of Melbourne, has returned from Europe, and has resumed practice.

Dr. W. E. Jones, the new Inspector-General of Asylums for the Insane in Victoria, arrived in Melbourne on February 14th.

Dr. W. R. Fox has removed from Fitzroy to 9 Collins-street, Melbourne.

Dr. Lilian Cooper has resumed practice at her rooms in George-street, Brisbane.

Dr. C. S. Hawkes has resumed practice at Glencairn, Wickham-terrace, Brisbane.

Dr. Eric W. Sheaf (son of Dr. Sheaf, of Toowoomba, Queensland), late scholar of Downing College, Cambridge, B.A., Science Tripos (Honours), M.B., B.C., Cantab, late assistant Demonstrator of Anatomy, Cambridge University, has been appointed clinical assistant at Guy's Hospital, London.

Dr. W. T. Cuthbert has resigned the position of surgeon to the Jundah Hospital, Queensland, and has been appointed surgeon to the Boulia Hospital, Queensland.

Dr. J. G. Beckett has removed from Northcote, Victoria, to St. Kilda-road, Melbourne.

Dr. J. W. Kennedy, of Hay, was entertained on February 8th at a banquet on the eve of his departure for six months' holiday to Europe. On the previous evening Dr. Kennedy was entertained by the Court Waragery of the Ancient Order of Foresters, and presented with a gold-mounted walking-stick.

Dr. W. Chisholm and Dr. Thos. Evans have been reappointed as representatives of the hon. medical staff of the board of directors of the Sydney Hospital.

Dr. W. Sproule has removed from West Australia to Mittagong, N.S.W.

Dr. P. L. Hipsley has removed from the Children's Hospital, Glebe, to "Heathcote," Gordon-road, Gordon, North Sydney.

Dr. H. S. Maw, formerly of Bellingen, has removed to Germanton, N.S.W.

Dr. I. E. F. Hosking's address is Deniliquin, N.S.W.

At Seacliff Asylum, New Zealand, on December 19th, a "social" was given for the purpose of saying good-bye to Dr. Crosby, who has been acting superintendent during the past few months, and of welcoming back Dr. King, after a recent visit to the Far East. Dr. King, on behalf of the staff, presented Dr. Crosby with a travelling bag and silver-mounted walking-stick, in recognition of his services while in charge of the institution.

Dr. E. H. Thane, late of Wagga Wagga, is staying for some months at Hunter's Hill, Sydney.

Dr. J. W. O'Brien was entertained by a large number of friends at Warrnambool, Victoria, prior to his departure for New Zealand. He was presented with an illuminated address and a handsome gold watch, inscribed with his monogram.

The Women's Hospital, Melbourne, committee have granted Dr. M. U. O'Sullivan, chairman of the honorary medical staff, nine months' leave of absence. Dr. O'Sullivan will visit Great Britain, Europe, and America. Dr. T. Downie and the remaining three members of the midwifery staff will carry on the duties of the honorary medical staff.

Dr. A. H. Marks has been appointed acting medical officer at Brisbane, and acting visiting surgeon to the following Government institutions:—Dunwich Benevolent Asylum, St. Helena Penal Establishment, male and female prisons at Brisbane, and the Lock Hospital. He will carry on the work of Dr. Espie Dods, who is leaving on a visit to Europe.

Dr. and Mrs. Berry will leave Southport, Queensland, shortly on a visit to England. Dr. South will act as *locum tenens* during Dr. Berry's absence.

Drs. Cleland and Wilson have been appointed medical practitioners for the purpose of the Workmen's Compensation Act, 1900, S.A.

MILITARY INTELLIGENCE.

Lieutenant F. J. Flashman, of the University Scouts, has been promoted to captain; and Second-Lieutenant A. M. Martyn to lieutenant.

Dr. John Hare Phipps, of Mosman, has been granted a lieutenancy in the Army Medical Corps.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Coutie, William Henry, M.B., Ch.B., as Junior Medical Officer in the Lunacy Department.

Kearney, C. J., L.R.C.P., M.R.C.S., to be Government Medical Officer, Vaccinator, and Member of the Licensing Court at Condobolin.

Sydney Hospital.

Adams, F. C., M.B., second Senior Resident Medical Officer.

Marsh, H.S., M.B., to be first Senior Resident Medical Officer.

Sharp, G. G., M.B., to be Resident Pathologist.

VICTORIA.

Cherry, T., M.D., of the bacteriological laboratory at the Melbourne University, to be Acting Director for Agriculture in Victoria.

Henry, Louis, M.D., J.P., to be a Member of the Police Medical Board of Victoria, *vice* Dan Astley Gresswell, M.D., D.P.H., deceased.

Kelly, James Patrick, M.B., as Acting Officer of Health for the shire of Wyndham, *vice* John Edward James Deane, L.K.Q.C.P., resigned.

Mailer, Ramsay, L.R.C.S.E., to be Medical Superintendent of the Ararat Lunatic Asylum, during the absence on leave of Walter Herbert Barker, M.R.C.S.E.

SOUTH AUSTRALIA.

Bennett, A. H., M.B., Ch.M., to be Honorary Ophthalmic Surgeon to the Queen's Home and a member of the Medical Board of the Institution.

Brummitt, Robert, M.R.C.S., to the Dental Board of South Australia.

Cudmore, Arthur Murray, F.R.C.S., to the Dental Board of South Australia.

Douglas, F. I., to be Officer of Health for the district of Port Elliot.

O'Reilly, Dr. Susie, to be Resident Medical Officer at the Adelaide General Hospital.

Wells, Clement Victor, M.B., L.R.C.P., to be a Public Vaccinator and Health Officer for the district of Laura.

QUEENSLAND.

Baldwin, Mary, M.B., to be Resident Medical Officer of the Lady Bowen Hospital, Brisbane.

Bond, L. W., to be Assistant Medical Superintendent of the Hospital for the Insane at Toowoomba, *vice* Dr. Watson, resigned.

Davidson, Dr., has been appointed Acting Health Officer and Acting Medical Officer at Rockhampton during the absence of Dr. Voss.

WEST AUSTRALIA.

Dunlop, J., L. *et* L. Mid., K.Q.C.P.I., to be Officer of Health, Northam.

TASMANIA.

Savage, Vincent W., M.B., to be Officer of Health, Oatlands district.

NEW ZEALAND.

Earle, Robert Charles, M.R.C.S., (Eng.), L.S A. (Lond.), to be a Health Officer for the port of Wanganui, *vice* Dr. Hatherley, resigned.

Neil, J. Hardie, M.B., P.S., to be a Medical Practitioner under the Workers' Compensation for Accidents Act, Auckland.

Parkes, W. H., M.B., Ch.M. (Edin.), to be Honorary Medical Officer to the Veterans' Home, Auckland, *vice* Dr. Bedford, resigned.

The following appointments have been made to the Dunedin Hospital:—

Barnett, L.E., Closs, I. O., Macdonald, Gordon, Hon. Surgeons.

Batchelor, F. E., Diseases of Women.

Colquhoun, D., Fitchelt, F., M.B., Macdonald, W. M., Hon. Physicians.

O'Neil, E. I., Assistant Surgeon, Out-Patients' Department.

Ferguson, H. L., Ophthalmic Surgeon.

Williams, Assistant Physician, Out-Patients' Department

The undermentioned persons to be Public Vaccinators for districts set opposite their names, respectively, viz.:—

Reekie, John Slingsby, M.D. M.S. (Kingston, Ont., Canada), Gisborne.

McCormick, William Milligan, M.B., C.M. (Glas.), East Taieri.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been duly registered as legally qualified Medical Practitioners in their respective States:—

NEW SOUTH WALES.

Bligh, Erasmus Algernon Robert, M.B. (Syd.), 1905.

Coen, Joseph, M.B. (Syd.), 1905.

Hagen, Leopold Kleimen, State Exam., Certif. Wurzburg, 1900.

Henderson, Ronald Lennox, M.B., Ch.B. (Edin.), 1903.

Morris, Andrew Bernard, M.B., Ch.B. (Aberd.), 1903.

Verge, Arthur, M.B. (Syd.), 1905.

Wendler, Fredrich, M.D., (Greifswald), 1901; State Exam. Cert. Greifswald, 1901.

For Additional Registration:

Coker, Alfred Philip, L.R.C.P. ond.), 1904.)

SOUTH AUSTRALIA.

Benson, Alexander Vigors, M.D. (Brux.), 1904; M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1904.
Rugg, Harold, M.R.C.S. (Eng.), 1874; L.R.C.P. (Edin.), 1875.
Scott, Malcolm Leslie, M.B., B.S. (Ade.), 1904.
Stokes, Alfred Francis, M.B., B.S. (Ade.), 1904.

An additional diploma was added to:

Wilson, T. G., M.D. (Syd.), 1904; *ad eundem* Adelaide, 1904.

TASMANIA.

Allport, Evatt G., M.R.C.S., (Eng.), 1901; L.R.C.P. (Lond.), 1902; D.P.H. (Camb.), 1904.
Kendall, Theodore M., L.R.C.P. (Edin.), 1881; L.R.C.S. (Edin.), 1881.
Morris, Andrew Bernard, M.B. (Aberd.), 1903; Ch.B. (Aberd.), 1903.
Winterbottom, Arthur Thomas, M.R.C.S. (Eng.), 1877; L.R.C.P, (Edin.), 1881.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

ANDERSON.—January 23rd, at Cobbitty, Cootamundra, N.S.W., to Dr. and Mrs. Hugh M. Anderson—a son.

BOX.—On January 28th, at "Riachella," Footscray, Victoria, the wife of John Box, M.B., B.Sc —a son.

EKIN.—January 26th, at her residence, Oberon, N.S.W., the wife of Dr. Wm. Ekin—a daughter.

FINNISS.—On January 17th, at Moseley-street, Glenelg, S.A., the wife of Dr. J. H. S. Finniss—a daughter.

GRAHAM.—On January 22nd, at York House, Brunswick-street, North Fitzroy, Victoria, the wife of E. Alfred Graham, M.B., Ch.B.—a daughter.

HENRY.—February 9th, at San Martino, Little Bay, Sydney, the wife of Dr. A. G. Henry—a daughter.

HINDER.—February 1st, at Carleton, Summer Hill, Sydney, the wife of H. Critchley Hinder, M.B., Ch.M.—a son.

HORSFALL.—January 22nd, at Hamilton, N.S.W., the wife of Dr. A H. Horsfall, D.S.O.—a son.

LLOYD.—February 9th, at Hunter's Hill, Sydney, the wife of H. S. Lloyd, M.B., of a son.

MILLARD.—January 29th, at Wahroonga, Sydney, the wife of R. J. Millard, M.B.—a daughter.

SCOTT.—On January 23rd, at her residence, "Ermabrae," Brunswick-street, Brisbane, the wife of E. W. Kerr Scott, M.B.—a son.

MARRIAGES.

BOND—WOODS.—On Saturday, January 28th, at St. Andrew's Cathedral, Sydney, by Rev. P. Simpson (Precentor), Lionel Wilfrid Bond, M.B., Ch.M., second son of John Bond, Esq., of Goulburn, N.S.W., to Vera, eldest daughter of Mrs. Harry Woods (Maud Fitz-Stubbs), of Darlinghurst, Sydney.

LYNCH—NIXON.—On January 19th, at St. Patrick's Cathedral, Peter Lynch, physician, Lygon-street, Carlton, to Edith, youngest daughter of the late Joseph Nixon, Falcon Vale.

ROE—HARDING.—On January 7th, at Sr. Mary's Cathedral. Sydney, James Morris Roe, M.B., eldest son of J. M. Roe, Warwick, Queensland, to Amy Mary, youngest daughter of the late Frederic Harding, Melbourne, Victoria.

DEATHS.

CLARKE.—On February 6th, 1905, at Come-by-Chance, near Wee Waa, New South Wales (of acute dysentery), William Clarke, M.A. (Cantab.), M.R.C.S. (Eng.), L.S.A. (Lond.), L.M.S. (Lond.), formerly of Hamilton, New South Wales, and late of Burton-on-Trent,, England, in his 41st year.

EKIN.—January 29th, at Oberon, N.S.W. (suddenly), the infant daughter of Dr. Wm. and Mrs. Ekin, aged 3 days.

HALSE-FRANCIS.—On December 27th, 1904, at Kaikoura, New Zealand, Ferdinand Henry Halse-Francis, M.D., Durham, M.B., L.S.A. (Lond.), of Victoria Lodge, West Norwood, England, aged 41 years.

HODGSON.—Ralph Hodgson, L.R.C.P. (Lond.), M.R.C.S. (Eng.), L.S.A. (Lond.), L.M., L.D.S.R.C. (S.), J.P., on the 18th inst., suddenly, aged 50, son of the late Captain Charles George Hodgson, late of Grenadier Guards.

HAMILTON.—On January 31st, at Willa Willa, Belair, South Australia, Evelyn Hester, daughter of Dr. T. K. Hamilton.

KEBBELL.—On January 10th, at Brighton, England, of heart failure, William Kebbell, M.R.C.S. (Eng.), L.R.C.S. (Lond.), formerly of Brisbane.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS:—

Dr. W. H. Lang, Corowa, N.S.W.; Dr. M. Veech, Molong; Dr. H. V. Würdemann, Milwaukee, U.S.A.; Messrs. Lemcke and Beuchner, New York; Dr. J. Steell, Ballarat; Dr. W. Morrison. Ballarat; Messrs. Baillière, Tindall & Cox, London; Messrs, Wood & Co., Sydney; Mr. G. T. Taylor, Hobart; Dr. D. Wield, Brisbane; Dr. Vance, Melbourne; Dr. Scantlebury, Melbourne; Dr. B. B. Ham, Brisbane; Dr. W. McMurray, Sydney; Fresh Food and Ice Co., Sydney; Messrs. Steedman, & Co., London; Dr. C. H. Souter, Balaclava, S.A.; Messrs. Brentanos, Washington, U.S.A.; R. C. Davis, Esq., University of Michigan, U.S.A.; Mr. G. H. Taylor, Hobart; Mr. W. E. Smith, Sydney; Dr. C. E. Corlette, Sydney; Dr. J. T. Mitchell, Ballarat; Dr. E. Champion, Ballarat; Secretary Jundah Hospital, Queensland; Dr. W. McMurray, Sydney; Dr. J. M. Gill, Sydney; Dr. W. G. Armstrong, Sydney; Dr. Richard Arthur, Sydney; Dr. Rees F. Llewellyn, Braidwood; Dr. T. G. Beckett, Melbourne.

BOOKS RECEIVED.

THE following works have been received from Messrs. W. B. Saunders, Philadelphia, New York and London. Melbourne: Mr Jas. Little, who now supplies these works at their quoted London net price:—

1. Handbook of Surgery for Students and Practitioners. By F. R. Griffith, M.D. 1904. Price, 8s 6d.
2. Examination of the Urine: Manual for Students and Practitioners, By G. A. De Santos Saxe, M.D. Fully illustrated. Price, 4s. 1904.
3. Textbook of Materia Medica. By R. A. Hatcher, Ph.G., M.D., and T. Sollmann, M.D., Price, 8s 6d. 1904.
4. (*a*) Saunders' Question Compends: Essentials of Histology. By L. Lefroy, B.S., M.D. Price, 4s. 1903.
    (*b*) Essentials of the Diseases of the Ear. By E. B. Gleason, M.D. 3rd edition. Price, 4s. 1902.
    (*c*) Essentials of the Diseases of Children. By W. M. Powell, M.D., 3rd edition; revised by A. Hand, jun., M.D. Price, 4s. 1901.
    (*d*) Essentials of Diseases of the Skin. By H. W. Stelwagon, M.D., Ph.D. 5th edition. 1903. Price, 4s.
5. Textbook of Obstetrics. By B. C. Hirst, M.D. 4th edition; revised and enlarged. Price, 21s. 1903.
6. Textbook of Pathology for Practitioners and Students. By J. McFarland, M.D. 1904. Price, 21s.
7. Textbook of Pathology. By A. Stengel, M.D. 4th edition; revised. 1903. Price, 21s.
8. Practical Application of the Röntgen Rays in Therapeutics and Diagnosis. By W. A. Pusey, M.D., and E. W. Caldwell, B.S. 2nd edition; revised and enlarged. 1904. Price, 21s.
9. Practical Materia Medica for Nurses. By Emily A. M. Stoney. 2nd edition. 1904. Price, 6s 6d.
10. Textbook of Clinical Diagnosis by Laboratory Methods. By L. N. Boston, M.D. 1904. 17s.

Dishes without Meat. By Alice Jevons. Sydney: Angus and Robertson. Price, 1s.
The Harvard University Catalogue, 1904-05.
Prince Alfred Hospital Gazette, Sydney.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane. Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol' Essence and Creosote, and find that there is little difference in their bactericidal action."—[ADVT.].

AUSTRALASIAN MEDICAL GAZETTE.

SPRING HILL FEVER.

By Eugen Hirschfeld, M.D. (Strassburg), Honorary Physician to the Brisbane Hospital (in charge of the Fever Wards).

THE subject of this paper is the epidemic which has prevailed for the last two months, principally in the Spring Hill district. I think we all are satisfied that the disease, as it presents itself at present, varies in some particulars from other diseases observed formerly. Are these differences sufficient to constitute it a new type of disease, or are they merely unimportant variations of the dengue fever with which we have become acquainted in the two epidemics of 1897 and 1898 ? In order to assist in deciding this question I propose first to give a short description of the symptoms, as furnished by the abundant material of the fever wards of the Brisbane Hospital, and by my private practice. At first the title of pseudo-typhoid suggested itself to me by the fact that many of these cases, especially at the beginning of the epidemic, were sent into the hospital as typhoid cases, and that even now it is difficult at times to distinguish between it and true typhoid. The points of differential diagnosis will be discussed after the symptoms have been described.

Age.—The most susceptible period seems to lie between the ages of 15 and 25, but the disease is evidently no respecter of persons ; sufferers can be found almost at any age ; the oldest patient that came under my notice was an old man of 75, the youngest a baby of 16 months.

Sex.—There is a difference in the liability of the two sexes. The women of the household almost invariably get affected first, and their men folk contract the disease subsequently. This evidently points to the fact that the infection is connected in some way with the soil or the locality, inasmuch as women who are more confined to the house, through their occupation, have an increased chance of contracting the disease, which seems to be rooted in the locality. That drains play an important *rôle* in the causation of the disease is borne out by the observation that servants who sleep in the lower portion of the house often become affected first, and in some instances so far have remained the only sufferers in some households. In one case where the girls sleep upstairs and the groom below, the male sex was the one who suffered first.

Relation to other Diseases : Occupation.—A former attack of dengue does not confer an immunity against this disease. Many patients who distinctly remember having suffered from dengue, with a definite rash, in the former epidemics, contract the disease. A warder in the Brisbane Hospital who had suffered from typhoid about six months ago was one of the first victims of the new epidemic. He gave Widal's reaction, and was at first treated as a typhoid patient. There is no occupation that renders one particularly liable to it, except the domestic one, as mentioned before. None of the hospital nurses so far have contracted the disease, although the resident medical man who looked after the fever wards was a patient at the beginning of the epidemic.

Incubation.—The stage of incubation lasts, roughly, about a week, although further experience will probably give us more definite information. A patient moved to another house, where she developed the disease. Four days after convalescence had set in, another inmate of the house, who had attended to her, was taken sick. This would give about seven or eight days of incubation, if we presume that infection has taken place at the height of the disease.

Prodromal Stage.—The prodromal stage varies. In many cases the patient is struck down suddenly ; in others, however, the patient states that he has not been feeling well from several hours up to two days. This stage is characterised by a feeling of general malaise and lassitude ; some describe it that they feel as if they had been beaten over the body and limbs. The *disease*, as a rule, sets in with a shivering fit, and in the severer type of fever this is a point of considerable importance with regard to differential diagnosis. As a rule the rigor is not severe. In other cases only a feeling of chilliness is being complained of. In some instances a repetition of the rigor takes place during the same or next day. The rise of temperature varies generally between 101° and 103°, but in some cases the temperature rises as high and above 105°. The temperature continues, with remissions, for six days, a crisis generally taking place at the end, which brings the temperature back to normal. The most prominent symptoms are pain in the head, loins, limbs, and abdomen. Together with the abdominal pain is associated more or less severe vomiting. Where vomiting does not actually take place, the desire to vomit is generally mentioned by the patient. The tongue is thickly coated, and in a very short time assumes the appearance of a typical typhoid tongue: bare, cracked with yellow patches here and there. A very frequently observed symptom is conjunctivitis, which, however, is but mild. It sometimes gives a peculiar appearance to the patient; he seems to have a far-away look. Chest and throat complications are frequent; an increase in the number of respirations to 30 and above not being unusual, although actual pneumonia does not develop. A rash makes its appearance in women in about 40 per cent., generally in the form of faint macular spots on the breasts, which sometimes spread over the chest and abdomen. In other patients the rash is erythematous, over the upper and lower arms, and occasionally on the legs, on their extensor side. Where the temperature is high the spots are livid in character, almost purpuric. A well-developed rash over the whole body is quite the exception. In men, the exanthema is more rare than in women. The rash does not itch as a rule. In about one-half of the cases glandular swellings make their appearance, generally in the inguinal region, but also in the axilla. The swellings are rarely painful, but sometimes tender. A breaking down of the gland was observed only in one case. The abdominal symptoms continue frequently, even after the crisis. Such is the usual course of Spring Hill fever. There are, however, many variations. We will now discuss the individual symptoms in detail.

Fever.—The temperature sets in with a shivering fit, which is not severe as a rule. A smart rise takes place immediately, varying from 101° to over 105° F. On the second day an abatement of the temperature occurs, and the curve with morning remissions keeps on a lower level. On the fourth day the fever rises again, and reaches its highest point just before the crisis. The crisis takes place at the end of the fifth day, extends roughly over 24 hours; it carries the temperature down to normal, not often to sub-normal. The sub-normal level is reached in a few cases three or four days after the crisis. Even during convalescence the temperature remains unstable; great outside heat, as we experience during the summer or too early exertion, is apt to raise the temperature to about 100° without a recrudescence of other symptoms. The outside heat also makes its influence felt while the fever lasts; the exacerbations are more marked, while the remissions are hardly affected. In other cases the curve is more continuous. Where the abatement of the fever takes place on the second day, the patient often feels well enough to rise and follow his occupation. He is brought to book, though, a few days later by the renewed rise. The rise of temperature does not seem to bear any relation to the appearance or intensity of the rash. On the whole, the following are the characteristics of the curve: *Initial rigor, smart rise, remissions, præcritical rise, crisis, fall to normal.*

Pain.—The pain, although invariably complained of, is certainly not so severe as in influenza and the former epidemics of dengue. The pains in the loins seem to be the most serious, and seem to annoy the patient more than the headache, which is generally frontal in character. The pains in the limbs are described variously as pains in the muscles or in the knee. In one instance a patient, a bookbinder, who had returned to work too early, informed me that he felt pains in every joint of his hands. A gouty or rheumatic joint is sure to make its presence felt as soon as the fever commences. There are generally considerable abdominal pains, which are located in the epigastrium and the region of the colon transversum. The mental symptoms are as a rule not severe. Depression of spirits, so characteristic of dengue, is not frequently complained of. Where the rise of temperature is high a good deal of delirium may exist, but not for long. In a child I saw quite a maniacal attack during the initial rise, which did not re-appear under treatment. Neuralgia or one-sided headache are not as a rule mentioned.

Abdominal symptoms. — The abdominal symptoms are very conspicuous in Spring Hill fever, and it is due to them that the disease has been so frequently mistaken for typhoid during the beginning of the epidemic. The tongue is more or less thickly coated, but within a few days assumes the condition of the typical typhoid tongue at the end of the second week. It becomes bereft of its epithelium, gets cracked, while here and there patches of thick fur remain. This condition improves somewhat after the crisis, but the tongue may remain coated for several weeks. The appetite, which is practically nil with the onset of the fever, is slow in returning during convalescence. Vomiting is a prominent symptom; where it is not actually present a desire to be sick is complained of by the patient. The gastric disturbance is a profound one in the first few days, and many patients vomit any medicine prescribed to them. The coal tar antipyretics, so frequently given in influenza and dengue for the relief of pain, are therefore not seldom inoperative at the beginning of the fever, while later on they give marked relief. It may be advisable to combine them with five to eight minims of liq. morph. in order to enable them to be retained. An enlargement of the liver is an almost constant symptom, the organ descending in some cases nearly three fingers below the arch, and can be made out easily except where the distension partly or wholly obliterates it. The spleen is often slightly increased in size, and helps to mask the disease under the guise of typhoid. The enlargement of the spleen is, however, never considerable. The abdominal pains are sometimes very severe, and may amount to peritonitic symptoms. In one case the patient was reported to be suspicious of having perforated on account of the great pain and excessive tenderness. In this particular case the tenderness was caused by a hyper-irritability of the abdominal wall. Another patient was treated for appendicitis. No doubt the hospital patients present a severer type of disease than the average patients in private practice, as the milder cases, if they can manage it, remain at home, while on the other hand only the more serious cases are admitted as in-patients into the overcrowded wards of the hospital. With this complex of symptoms above described it is not to be wondered at that the disease has been frequently mistaken for typhoid until the further course enlightened us as to the true nature. I must add that the bowels are almost invariably constipated.

Rash.—The rash was not noticed much at the beginning of the epidemic, the diagnosis being rendered more difficult for this reason. During the last few weeks. however, it has become more frequent, more particularly amongst women; but even there it is not well developed, and I remember but three cases in which the rash was abundant, as we had experienced commonly in the dengue epidemics of 1897 and 1898. The patient is generally distinguished by a flushed face. The rash first appears as a rule on the breast, in the form of symmetrical pale maculæ, which gradually spread to the chest and the upper part of the abdomen, and sometimes to the back. More rarely it assumes a morbiliform or scarlatina form character. On the other hand it may appear in the shape of erythema on upper and lower arm, more often the latter, where it occupies the extensor side. The lower limbs are usually free. When the temperature is high the rash presents a pale, livid hue. The palms and the soles of the feet I have seen affected in two instances. The latter were the favourite places for the dengue rash. The reason why women exhibit the exanthema more frequently than men do is perhaps connected with menstrual troubles. In some cases the rash appears first faintly on the second day, gradually deepening and extending until it reaches its acme the sixth or seventh day. A few patients (women too) showed a distinct herpes nasalis and labialis.

Heart and Circulation.—The following were the symptoms exhibited by the circulatory system:—(*a*) An absolute and relative brachycardia, *i.e.*, the pulse was slower than one would expect from the corresponding temperature; for instance, pulse of 88 and a temperature of 104·6 deg. (*b*) The pulse wave becomes dicrotic in character at an early stage. (*c*) Where there is previous heart trouble the compensation becomes considerably disturbed, as giddiness and fainting attacks supervene as soon as the patient attempts to sit up, even when convalescent for a few days. (*d*) The systolic output, the effective work of the left ventricle is lessened as the first aortic sound grows less distinct and becomes quite inaudible in a considerable number of patients.

Throat and Lungs.—The patient often complains of a sore throat. In inspecting it we find either a uniform or punctuated redness over the soft palate fauces and pharynx; a good deal of the cough that is present is probably due to this source. The number of respirations are unduly increased, out of proportion with the temperature; râles are not frequent over the lungs. In one case blood appeared in the sputum of a previously healthy young man after the fever itself had subsided.

Generative Organs.—The generative organs are profoundly affected. It is almost pathognomic of Spring Hill fever, that a woman who falls ill will start menstruating, and if she has been menstruating previously the flow will increase. Miscarriage took place in two cases. There evidently is an abnormal and considerable congestion towards the uterus. Orchitis I have seen in men but twice, in each instance associated with considerable enlargement and tenderness both of the inguinal and femoral glands.

Having described the symptoms as exhibited by the patient, we now proceed to discuss the differential diagnosis of the disease and its identity. Once the epidemic is fully developed the disease will be rarely mistaken; nay, it is more likely that other diseases will be thrown into the same pot and treated in the same manner.

We will take, first, *Typhoid*.—Let us state at the outset that it will be almost impossible, under certain circumstances, to separate this affection from typhoid. The prominence of the abdominal symptoms, the appearance of the tongue, the temperature, the slowness of the pulse and its dicrotic character, the swelling of the spleen, the enlargement of the liver, and lastly the typhoid appearances of the patient, all point to enteric fever. But we can add that the difficulty in diagnosing will never last for long. If we were called in in the first instance, when the disease started, we, of course, would know that the rapid rise of temperature was not compatible with typhoid, neither could enlargement of the spleen be found at so early a stage. But we all know that the difficulty in diagnosing enteric fever arises in many cases from the fact that the patient generally gives a vague history of the onset, and that a healthy working man, for instance, is likely to describe his disease, not from the time it really began, but will date it from the time it forced him to leave off his work. It is true that the pains in the limbs, the headache, and particularly the pains in the loins, are more severe than they are usually found in enteric fever. Moreover, the vomiting in enteric is not of quite such frequent occurrence as in this present affection. But a further complication arises from the fact that typhoid as found at present is undoubtedly modified in several cases by the co-existence, or let us say co-infection, with the other disease. One case of typhoid fever which quite recently ended fatally with perforation on the tenth day (which, as we all know, is an unusually early time for perforation to take place) exhibited a similar curve of temperature to that of Spring Hill fever. There were the same remissions of temperature, abdominal pains, headache, and slowness of pulse; even repeated shivering fits were present in this case, the only point more characteristic of typhoid being an unusually large swelling of the spleen, which reached into the nipple line.

But this difficulty in differentiating typhoid and Spring Hill fever will never last for long. In a few days the critical fall of temperature or the rash will show us that enteric can be excluded.

The points of difference which ought to guide us are:—

1. The history of the patient. If we can find out that the patient has been really feeling quite well within a day or two, but suddenly exhibits a temperature of 104°, we will remember that Wunderlich's contention still holds good that no temperature which rises to 104° within the first two or three days is due to typhoid.
2. It is not a very common thing for typhoid to begin with a shivering fit.
3. The enlargement of the spleen does not show itself in enteric before the fifth or sixth day, and the cracked bare tongue, bereft of its epithelium, which we find within a few days of the onset of this epidemic, is characteristic only of typhoid at the end of the second week at the earliest.
4. A strongly injected conjunctiva speaks for Spring Hill fever.

You will thus see that the principal differential points are based upon ascertaining the date of onset clearly and without reasonable doubt.

Of course when the rash has made its appearance, no doubt can be entertained as to the nature of the disease.

Plague.—That Spring Hill fever is liable to be mistaken for bubonic plague is evidenced by the fact that many cases have been reported as suspicious of bubonic plague. We know that there is no other disease besides plague in which glandular swellings are such prominent symptoms as this present epidemic. These glandular swellings are, moreover, in a number of cases, tender and painful. As mentioned before, in one case it came to an actual breaking down of the gland. The moderate enlargement of the spleen, the enlargement of the liver, the abdominal symptoms, and the chest complications (with no definite pneumonic symptoms) and the increased respirations, and, last but not least, the injected conjunctiva and the far-away look of the patient, are common to both diseases.

The points which ought to guide us in differentiating between the two diseases are the abnormally slow pulse—the rapid increase in the pulse rate being characteristic of plague—while the proportionately slow pulse speaks for Spring Hill fever.

A bacteriological examination when positive for plague, of course, settles the question, but a negative result still leaves matters in abeyance, if the principal plague mischief is situated (as we had in several cases lately) in the mesenteric glands. Tenderness of swollen glands is certainly not so common in Spring Hill fever as it is in plague. Remissions of the temperature are not frequent in plague, except where they are perhaps caused by an antipyretic.

Scarlet Fever.—When the rash is erythematous in character, the tongue bare and cracked, and the fauces deeply injected, it will be very difficult not to mistake a Spring Hill fever case for one of scarlet fever. Here, again, the abnormally slow pulse rate is a valuable factor in guiding us in the right direction.

The exceeding severity of the pain always indicates Spring Hill fever, but if both epidemics should happen to be present at the same time, I am sure no medical man could be blamed for mistaking certain cases of Spring Hill fever for scarlet fever, or *vice versa.*

Of course, as the disease continues to develop, the doubts with regard to the identity of the disease will cease. The absence of severe kidney complications, the critical fall of temperature, and other well-known symptoms will help in excluding scarlet fever.

Spring Hill Fever and Dengue.—Many medical men look upon this Spring Hill fever as another edition of the former dengue epidemics. There are, however, many and material differences in spite of the resemblance in other respects. In looking back upon our records of the dengue epidemics, we find that the rash was an invariable symptom. "No diagnosis of dengue is complete without the rash." Here we have a disease with a rash more or less faintly marked in barely half of the female cases, and still less frequent amongst men. Neither is the rash so extensive; its localisation is distinctly different, preferring the extensor sides, while leaving palms and soles as a rule unaffected. It may be argued, perhaps, that the former epidemics left a measure of immunity behind, and that this immunity must be made responsible for the lessened distinctness of what we always looked upon as the most conspicuous symptom of dengue. This plea, however, cannot be sustained. Fresh arrivals from the south, who had never had a previous opportunity of suffering from dengue, acquired this present disease, and never showed the slightest trace of an exanthema. The pains and mental complications are not so severe as they were in dengue. Inflammation of the throat, conjunctiva, swelling of the glands and bronchial complications are frequent in Spring Hill fever, but were never noticed in dengue. The vomiting, a not infrequent symptom of dengue, is one of the most prominent features of Spring Hill fever, and often associated with severe abdominal symptoms. The disturbances of the generative tract are common to both, but more marked in the present epidemic. These are, briefly sketched, the differences.

Its Nature.—What is the nature of the present epidemic? It certainly has nothing to do with typhoid. It is a gastric infection, not a gastro-enteric infection. Neither is it plague, not even "in a diluted form"; in two cases glands were excised and found to be free from any bacilli; that disposes of the plague theory. It is distinguished from gastric fever or febricula by running a definite course, with rigor and crisis, and a rash and glandular swellings. My own view about the matter is that the present epidemic is a *visceral* form of dengue. Instead of the skin, the mucous membranes are picked out; thus we see injection of the conjunctiva, fauces, pharynx; we may presume that the stomach is similarly affected on account of the frequent vomiting; we know that there must be an intense congestion of the mucous membrane of the uterus, as is evidenced by the reappearance of the menstrual flow, as soon as the disease begins. We see the glands affected. The strongest corroboration of this view, however, is furnished by the fact that cases with no rash at all simultaneously occur in the same family with cases in which the rash and the pains in the joints are well marked. We therefore arrive at the conclusion that *the Spring Hill fever is in reality visceral dengue.*

(Read before the Queensland Branch of the British Medical Association.)

POST-TRAUMATIC EPILEPSY.—TREPHINING.—INCISION AND DRAINAGE OF CYST IN FRONTAL AREA OF BRAIN.—RECOVERY.

By Philip James, F.R.C.S. (Eng.), Wellington, N.Z.

SOME years ago I contributed to the columns of the AUSTRALASIAN MEDICAL GAZETTE the history of a case of post-traumatic epilepsy, in which there was reason for believing that a permanent cure had been effected. I now send the record of a second case, which is of interest, although it is perhaps too soon to claim a permanent cure.

Mr. J. O., *ætat* 24, a footballer, was either kicked, or struck, or fell on his head during a football match on July 25th, 1903. Beyond feeling stunned and " sick " for a short time, he did not appear to have come to much harm, and was able to resume play and finish the game. He then went home and had his tea, and dressed to go out for the evening. About 7.30 p.m., or approximately three hours after the accident, he " felt hot all over," had a " sickly " sensation, with pain in the head, and weakness in left side and limbs. He then suddenly fell down on the floor, unable to move or speak, but able to recognise all around him. This is his own version. My information, however, from his friends is that a fall being heard he was found insensible in the bathroom, and remained in a state of partial insensibility for several days. A neighbouring medical man was called in and attended him. He gradually recovered, until at the end of eight weeks he felt very well, and resumed work. He continued to improve for some weeks more, until one day he suddenly felt sick and giddy, had pain in the head, and felt his face being drawn to the left side. He then dropped unconscious to the ground. The attack lasted for several minutes. During the past year he has had many such attacks at intervals varying from one to six weeks. He continued to get worse, both mentally and physically; his memory failed; there was incapacity to concentrate his mind upon anything, until, according to his friends, he had become quite useless for all purposes of work. From the description of the fits given by his relatives there could be no doubt that they were epileptiform in character. As he had been told that his was not a case for operation, and that he would grow out of the attacks, his friends brought him to me.

After hearing the history that has been noted above, I examined his head very carefully, but could find no trace of injury. His aspect and manner were dull and lethargic. The pupils were somewhat dilated, and reacted to light very sluggishly. There was, in my opinion, ample evidence of intra-cranial pressure. I therefore advised operation, but my prognosis was a guarded one. I considered that there had been some intracranial hæmorrhage, with subsequent compression of the brain. On investigating the question of localising symptoms, I found that he was quite clear upon one point, and that was that as soon as he felt the attack coming on his head was drawn to the left side, and it was over the centre for movements of the head to the opposite side that I determined to trephine. Accordingly, on September 22nd, the head having been previously shaved and cleaned, and the Rolandic fissure and the above-named centre having been mapped out, I proceeded to operate. The centre described by Horsley as governing the movements of the head to the opposite side in monkeys is over the posterior part of the superior frontal convolution, *i.e.*, near the median line of the skull and almost vertically above the ascending limb of the Sylvian fissure. Having turned down a large semilunar flap, with an inch trephine I removed a disc of bone from Horsley's area, the upper margin of the trephine hole being so placed as to avoid the longitudinal sinus. No brain pulsation was visible. I then swept a bent probe round between the skull and dura mater, but found no clot or depressed bone. A crucial incision having been made in the dura mater, the brain at once bulged up tightly into the trephine hole. I then explored the exposed area of brain with a hypodermic needle, the result being negative. However, the fact of there being great cerebral pressure having been demonstrated beyond a doubt, and still pinning my faith on the localising sign, I determined to persevere; so with the aid of Rongeur forceps and Gigli's saw I enlarged my opening to the front and downwards until I had an area of about two inches of brain suface exposed to view. At the anterior part of the exposed area I thought I could detect a sense of fluctuation, and into this part I very gently and carefully introduced a grooved probe, until at the distance of about an inch from the surface I felt a lessened resistance, and some fluid began to ooze out. I then passed in a fine pair of sinus forceps along the probe, and slightly opening the blades withdrew them, when a gush of fluid, slightly reddish in tinge, took place. A rubber drain was then inserted. The amount of fluid which escaped was probably not far short of an ounce. I regret that none of this was saved for microscopical examination. In the absence of this I am not able to affirm positively that the cyst was not hydatid, but I think that the clinical history of the case and the slight reddish tinge of the fluid point very strongly, if not certainly, to a hæmorrhagic origin. As soon as the fluid was evacuated the brain resumed its normal level and the pulsation returned. The bleeding was very slight until in putting in my last stitch into the dura mater I punctured a vein, which bled very freely and which I could not tie. The hæmorrhage, however, was controlled by a plug of iodoform gauze, which I left in for two days.

He made most satisfactory progress, his temperature during the first two weeks ranging from 99° to 103° F. On the fourteenth day it dropped to normal, and remained so. There was a free discharge of the same kind of fluid for several days, but it gradually decreased in quantity until it finally ceased on October 6th. A day or two later the wound, which had remained quite aseptic throughout, had healed. The brain pulsations were now clearly visible through the scalp. His dull, lethargic manner had quite disappeared, and his friends avowed that he was as bright and alert as ever he was. I kept him in the hospital for two or three weeks longer to guard against imprudence. On October 25th he was discharged cured.

Apart from the interest which attaches to a case of some obscurity, when the treatment adopted confirms one's diagnosis and justifies one's actions, I think this case ought to be reported for another and a very much stronger reason, viz., that it has been held that operation is hopeless in cases of post-traumatic epilepsy, or, indeed, in any kind of epilepsy where the frontal region of the brain is implicated. In Sir Frederick Treves' "Manual of Operative Surgery" (new edition, 1903), vol. 2, p. 739, we read: "Sir Victor Horsley has never known a case in which the frontal region of the brain had been implicated improve after operation, nor is the prognosis much better when the sensory area—occipital and tempora-sphenoidal lobes—are concerned."

This case proves, whatever may be the result *quo ad* permanency, that Sir Victor Horsley's view as regards the frontal region requires to be modified, while my former case, published in the *A.M.G.* for May 20, 1897, and reviewed in "Treatment," vol. 1, 1898, shows that the same may be said of the sensory area.

PULSATING EXOPHTHALMOS.—POST-MORTEM.

By J. Lockhart Gibson, M.D. (Edin.), M.R.C.S. (Eng.), Brisbane.

IN 1896 I read before the Queensland Medical Society "Notes of a Case of Traumatic Rupture of the Carotid into the Cavernous Sinus, with Resulting Pulsating Exophthalmos." The notes were published in the *A.M.G.* for April, 1896. In March, 1904, I had, through the kindness of Dr. A. G. Salter, an opportunity of observing the patient on the day of his death, owing to sudden rupture of the sinus, and of being present at a post-mortem examination. Acting on the belief that every such case should be followed up by a report of its post-mortem, on the rare occasions when this has been possible, I bring these notes before you this evening.

The diagnosis was entirely confirmed. The case favours the conclusion that ligature of the common carotid is likely to be insufficient treatment for rupture of the carotid into the cavernous sinus, that ligature of the internal carotid would also be insufficient treatment, and that ligature of the common; followed after a short interval by ligature of the internal carotid would be most likely to yield permanently beneficial results. Those interested must refer to my original notes for fuller particulars. The essential points are shortly as follows:—

Boy, aged 8 years, was sent to me by Dr. Love in March, 1895. Four weeks previously he had been struck in his right eye by an umbrella rib. Great swelling, pain, and prolonged vomiting followed. Examination showed paralysis of external rectus, some proptosis, and conjunctival injection. Three months later proptosis had increased so greatly that I hesitated to expand the lids too widely in case there might be difficulty in replacing the eyeball within them. The ball could be pressed back into its socket, and then marked pulsation could be felt. A loud bruit was heard all over the head and over the upper part of the anterior triangle of the neck. This bruit was also heard by the boy himself. A very marked thrill was felt over the upper part of the internal jugular vein. Sight, $\frac{6}{12}$.

No optic neuritis. Diagnosis: Rupture of carotid into cavernous sinus, due to direct violence, with resulting aneurismal varix of orbital veins, and consequent pulsating exophthalmos. In June, 1895, I tied the common carotid. Absolute cessation of bruit occurred for 12 hours. The eye receded almost completely into its socket, and no feeling of pulsation could be detected. The bruit was noticed again by the boy on the second day, and it and the proptosis became slowly again established, but to nothing like the former extent, and no pulsation of the ball could be detected when the case was exhibited a year afterwards. Ligature, therefore, of the common carotid had not only stopped advancing proptosis, but had permanently reduced it. The boy developed physically and mentally, attended school, and, except in appearance, suffered little inconvenience until March 21, 1904, slightly more than nine years after the injury.

On that day he had been helping his father to dig up some fence posts, as he had latterly been accustomed to do manual work. Late in the evening he suddenly exclaimed, "Oh! my eye. Hold my head!" Upon his mother calling to his father to go for the doctor, he said, "I shall be unconscious before he gets here." He was unconscious before Dr. Salter arrived. Breathing next morning was stertorous, pupils small, left side of body paresed and almost paralysed. He died on the evening of March 22nd.

Dr. Salter conducted a post-mortem in the parents' cottage, at which Dr. Love and I were present. The size of the lad of 17 years was worth remarking, and it may have had some connection with his intra-cranial state. He was 5 feet 10 inches in height, broad and well proportioned, and had weighed three months before 9 stone 5 lb. Probably several pounds had been added during those three months. There was evidence of extravasation under the skin of the neck in the course of the internal jugular. Veins of the surface of the brain were distended. Dark effused blood was found over the base of the brain on the right side. The right cavernous sinus was very distended and ruptured at its posterior end in front of the apex of the petrous portion of the temporal bone. The anterior and posterior clinoid processes on the right side were flattened, hypertrophied, and spread out. Their tips extended a little towards each other, and were at a distinctly higher level than those of the opposite side. The pituitary body was pushed over towards the left. On dissecting out the cavernous sinus the foramen lacerum was found to be very dilated, and rounded and admitted an index finger-tip. Its edges were rounded and eroded. The sphenoidal fissure was much dilated and the lesser wing of the sphenoid was raised with its clinoid process and eroded on its under surface and rounded. An index finger-tip could be pushed practically into the orbit, through the fissure, and the sinus extended into the fissure and through it. The pituitary body, as already mentioned, was pushed to the left, and the right side of the sella turcica was hollowed and absorbed by pressure.

His mother stated that the lad had always grown well, but that his increase in size had been more noticeable during the last ten or twelve months of life. It is just possible that, had his life been prolonged, a definite example of gigantism might have been developed owing to increased blood supply to the pituitary gland, and that his physical development foreshadowed this.

I regret that in this case the *internal* carotid was not tied a few weeks subsequent to the ligation of the common carotid. Although at first thought ligature of the internal carotid would appear likely to yield better chances of a good result than ligature of the common trunk, it appears to me that collateral circulation between the branches of the external carotid and the ophthalmic artery would be so quickly, directly, and freely established that no more, possibly less, lasting effect would be obtained than by ligature of the common trunk alone.

I am inclined to think, however, that it would be right to advise the double operation. It is, of course, evident that even then collateral circulation would be quickly established, but probable that less intra-vascular tension in the cavernous sinus would result than if we rested satisfied with ligation of either artery alone. The dilated cavernous sinus was dissected by Dr. Salter, and I am able to show it to you this evening. You will notice its size, its thickened walls, the fact that the outer wall of the carotid artery has been torn and its cavity made one with the sinus. The greatly dilated commencement of the petrosal sinuses can be recognised, and the equally dilated opening of the ophthalmic vein. There can be no doubt that the injury was due to direct violence; that the umbrella wire passed into the orbit, through the sphenoidal fissure, between the cavernous sinus and the carotid, tearing the external wall of the carotid, thus laying it open into the whole length of the sinus, and at the same time injuring the sixth nerve.

Reference to a skull makes this quite clear. The point of the wire was probably "brought up sharp" at the base of the posterior clinoid process. No wonder the boy vomited for a fortnight.

(Read before the Queensland Branch of the British Medical Association.)

A CASE OF TRACHEAL HÆMORRHAGE.

By H. Russell Nolan, M.B., Ch.M., Hon. Assistant Aural Surgeon, Royal Prince Alfred Hospital, Sydney.

Last May this patient was sent to me to examine his upper respiratory tract to see if there was any cause there for his blood-spitting. Dr. G. E. Rennie, to whom I am indebted for permission to publish these particulars, reported that he had examined him most carefully, except as to his nose and throat, and that he had been unable to discover any disease.

This man was a commercial traveller, 54 years of age, florid faced and inclined to stoutness, but a non-smoker and almost a non-drinker. He said he felt in "tip-top" condition, only being very worried as to what might be the meaning of the bleeding.

The history was that three weeks ago, immediately after dinner, he had a slight tickling in the throat, followed by a short cough, and "then the mouth filled from somewhere," and he spat up bright blood, about an eggcupful. All next day, at short intervals, blood was coming in a similar way to this. The amount of blood gradually decreased, but ever since it had still been more or less profuse. While sitting in my waiting-room for about ten minutes he was forced to ask the maid for a basin, and he expectorated about four ounces of blood. He said most definitely, "the trouble, whatever it is, seems to be on the left side of the neck," touching his neck from the thyroid cartilage to a little above the inner end of the clavicle. This was borne out on examination. Every part was healthy down to the trachea, which was coated all over with thin bloodclot, or rather, perhaps, blood-stained mucus, more pronounced on the left side.

Next day he was examined again, when it was clearly seen that blood was trickling down the left side of the trachea from some spot out of sight below the left vocal cord. The rest of the trachea was normal.

Some years ago he had had a similar attack of, apparently, causeless blood-spitting, which seems to have ceased of its own accord after lasting for a few days, since which time up to this attack he had been in robust health.

We decided the prognosis was good, and told him so, which greatly relieved his mind, as several doctors had told him he had serious lung trouble commencing..

He took adrenalin chloride solution in 10-minim doses thrice daily, used a simple soothing spray to the throat, and was directed to avoid all violent hawking and clearing of his throat. Two days after this the bleeding had stopped, and he resumed his duties.

It is some months since we saw him, but his nephew, a medical student, reports that he appears to be in excellent health, and has had no return of the hæmorrhage.

The diagnosis of "simple tracheal hæmorrhage" was made from the negative result of a thorough examination, more especially of the heart, lungs, and liver, and the positive evidence of a bleeding spot being seen in the trachea.

A serious view had been taken elsewhere, the hæmoptysis being regarded as the forerunner of pulmonary disease, but no laryngoscopic examination had been made. On the other hand, the opposite case is not unfrequently met with where an apparently healthy person, having no sign of pulmonary or other disease, has a slight or profuse hæmoptysis, and, again, without any laryngoscopic examination, he is comforted with the decision that he has "only ruptured a small vessel in the throat." So that the only certain proof of a person having ruptured a small blood vessel in this region is to actually see the condition, whether this be of simple consequence or otherwise, being most likely decided by the state of the other organs of the body. What was the cause of this hæmorrhage is not clear.

Nine cases have been noted of tracheal hæmorrhage after influenza,[1] all of which recovered perfectly. There was no recent history of influenza in this instance. Tommasi[2] has recorded five cases of what he calls hæmorrhagic tracheal catarrh, one being post-influenzal and four in which the tracheitis was more or less chronic, and probably induced, he thinks, by nasal obstruction. In most of Tommasi's cases the mucous membrane of the trachea was congested in places and the blood-vessels dilated. These also all quite recovered. Three further cases of Donelan's[3] are recorded, two of which died later of pulmonary tuberculosis, and the third was in an advanced stage of the disease, but, curiously, in only one of these three did the larynx become infected. One case is given by Professor Massei,[4] in which tracheal bleeding appeared to have been the first warning of the hepatic cirrhosis, which subsequently ran a fatal course.

A routine use of the laryngoscope in every case of hæmoptysis, or at least in every case in which the source of the bleeding is obscure, may avoid in a few cases a too serious a view being taken, and all that would follow from expressing and acting upon such an opinion.

REFERENCES.—(1) "Journal of Laryngology," January, 1901. (2) "Archiv. Ital. di Laryngologia," October, 1898. (3) "Journal of Laryngology," January, 1901. (4) "Archiv. Ital. di Laryngologia," October, 1898.

SURGICAL AIDS AND MAKESHIFTS.

By E. Ken Herring, M.R.C.S., L.R.C.P., Shepparton, Victoria.

IN a country practice where one has, as a rule, no further assistance than a nurse and anæsthetist, and where the number of one's cases does not justify the purchase of an elaborate armamentarium, and yet where one has to be prepared for almost any operation, the surgeon has to take advantage of any aids or makeshifts which may help him to perform his work single-handed, or may save him time, trouble, or expense. Having fished up from various sources several such aids, which have been of great service to me, some of which have been much appreciated by friends, and some of which I have found to be almost unknown, I feel called upon to give a few notes of them. They are points upon which the books are not informers, and the instrument-makers are less likely to give information.

To start with *sterilising*. It is not generally known, I think, that the ordinary cooking oven will act as a good steriliser for towels, sheets, etc. Damp the articles well, bundle them loosely together, and put in a hot oven for 20 or 30 minutes, with the fire going down. For *instruments*, an enamelware fish kettle, 16 x 6 x 6, which your local ironmonger will get for you at 7s 6d, will do just as good work as the most elaborate steriliser. It can be put to boil on an oven range, open fire, or "Primus" stove. This latter is a most useful article in hot weather when there are no fires about, and it can be taken easily to the place of operation. Don't forget the soda with your instruments to prevent tarnishing.

For *sutures*, ordinary drapers' linen thread, Nos. 30, 60, and 90, is as good as anything. Have a three-slot glass winder, and wind on what you want, and boil with the instruments. Thread will boil over and over again, and the glass gives no rust on drying. An empty three-reel suture tank (Lee's) may be re-utilised thus: Break away the outside glass, leaving the axle and reels; smooth the broken ends of axle by melting over a spirit lamp; wind your material on the reels, and put whole into a test tube with a wool plug. Boil, and you have a clean suture, which may be put by for future emergencies so long as the wool is not removed.

Catgut.—Silkworm gut boils in water. Raw catgut can be boiled with your instruments by putting it into xylol or alcohol in a close vessel; a brass lens case from my microscope I find suits beautifully. A 2-oz. tobacco tin will take your suture material and keep it together in the boiler and afterwards.

Swabs.—Gamgee tissue cut into sizes and stitched round the edges makes the best possible. Boil with your instruments, or keep a sterilised supply in an empty screw-top gauze bottle (Lee's).

Gauze.—Buy "butter cloth" by the yard at the draper's, and boil as you want.

Knives.—A blunt knife is a mental worry, and may spoil an operation. With a "waterstone," patience, and care any man can have a sharp knife if he will. Remember a knife edge is not a hollow-ground razor edge (length without breadth), but has a bevel. The patience is needed to grind down the flat surface, the care to touch off the bevel. Another thing about knives, don't let the nurse handle them. I never knew a woman yet who respected a sharp edge or point, and some of my best nurses have sent my knives home wrong end on in their box, the edges all nicked by shaking on the rack. No; have a scalpel box (your tinsmith will make you one for 1s 6d), and put your knives into and out of it yourself. My box takes also a Reverdin or other needle whose point I wish to preserve.

Shaving.—This is nurse's work, but she will probably be thankful if you have a "safety" razor for her, so saving her time and anxiety. Keep it sharp.

Douching.—A syphon tube from a large jug or vessel on the mantelshelf or elsewhere saves handling and assistance for syringing. The tube needs a "bend" for the jug edge and a spring clip (rubber tubing, by the way, including catheters, may be boiled). Size 12 or 13 fits the commonly-used dilating uterine douche, which is just as useful in the abdomen as in the uterus. Another but uncommon use for this instrument is in midwifery cases, in prolapse of cord, where it will be found to be as effective a repositor as the gum elastic catheter, which few midwifery bags carry.

A *legholder* which I found very handy before I possessed a portable operating table, was made for me by my saddler—a piece of web girthing, 6 ft. long, having a hook at each end, and a dozen eyelet holes one inch apart, starting 15 inches from each end. With this little article, which will boil, a patient can be put into the lithotomy position anywhere.

Now let me mention a few articles, of which it may be said "once used always used."

Taffetas marinier, as a first and only dressing to any surgical incision, which should heal by first intent. Moisten the skin and put the taffetas dry. It seals the wound till the time for taking out stitches, but can be seen through.

Scissors used in the palm of the hand from the base of first finger when suturing save lots of time. There is a pair (Kocher's) made specially for the purpose, but I have for years used an ordinary pair of dressing scissors, and have not tried Kocher's.

Jordan Lloyd's retractors, Carwardine's ligature forceps, Kelly's proctoscope, and Harrison's whip bougie are such aids and time-savers that I think no one should be without them. Of course, *chacun à son gout*, and I should like to hear of other men's "pet" articles.

Finally, a word on *chloroform vomiting*, which may be so distressing to your patient, and so harmful to your case. A piece of gauze soaked in vinegar put over the nose and mouth as soon as the operation is done, and renewed frequently for a couple of hours, will often prevent vomiting. If, after a few hours vomiting still be severe, a tumblerful of lemon drink by the mouth will be returned, but it will generally stop the distressing retching. A previous history of severe vomiting should call for A.C.E. instead of chloroform.

NOTES ON SOME HOSPITAL CASES.

By **F. Hamilton-Kenny, M.R.C.S. (Eng.), L.S.A. (Lond.), Medical Superintendent Gympie Hospital, Queensland.**

Puerperal Fever—It is a matter of regret that cases of this kind are so frequent in hospital. From an experience of five years on this mining township of 15,000 souls, I can see how numerous deaths were not unavoidable. Midwives bungling the third stage of labour and septic hands and syringes are the factors in causation. Syringing women, save in the hands of one trained, body and spirit, in asepsis, is fraught with danger and death.

I saw, in consultation, a woman who had pelvic cellulitis, following on curetting. She was ordered to be, and was, syringed by an untrained and septic nurse. The ensuing cellulitis was awesome; the back, right up, was œdematous. She died with blocked ureters, convulsed. I feel sure a septic syringe was the cause, plus a septic nurse.

The following case is instructive:—Mrs. A.B., primipara, confined by midwife; admitted for fever; treated; recovery. I attended her for No. 2. Normal labour and puerperium. For No. 3 a midwife was engaged. Syringed freely. I saw her later on. Temperature, 105°; taken to hospital; treated; recovery.

I will recall but one more:—Mrs. C.D., 21, primipara. Seen outside; temperature, 104° F. Removed to hospital, and treated in routine manner. For weeks her life hung in the balance. The right knee suppurated, and was opened and drained; collections of pus formed at both elbow-joints; gluteal abscess of large size; numerous bedsores, in spite of all care. Her mind became unhinged, and with vigour and consistency she opposed our efforts at treatment. She is now fat and well, but limps a little.

The death rate is higher than it should be. The needless suffering and expense is far too large. My routine treatment is this:—See that my hands, instruments, and assistants are aseptic; chloroform and lithotomy position; shave and cleanse vulva and vagina. Then I curette. I pass two fingers into uterus and feel the interior; I have regretted *not* doing this. I douche with hot perchloride 1-2000 or biniodide, dry, and then swab interior of uterus with diluted lin. iodi.; pack for 24 hours with iodoform gauze; I clean and douche but once. I have lost but one case in five years, and that case was twitching and noisily delirious on admission. I have not used any serums, nor done Pryor's operation.

Accidents.—We are fairly free from mining, but we get many horse accidents. Alcohol is a large factor in the causation.

Case No. 1.—A.B., admitted for a backward and outward dislocation of the right tibia on the right femur—an unique accident. The cause was two youths riding at each other, and the saddle struck the leg and drove it back on the thigh, and unhorsed the rider. I reduced, under chloroform, easily. When the swelling subsided, I put it up in plaster of Paris for six weeks, and the leg is now as fit as the other.

Case No. 2.—J.I., aged 8, thrown by a propping horse against a gate. A protruding screw of the hinge broke the bone and penetrated brain. The lad never lost consciousness. I trephined and cleaned; I removed small pieces of straw from the mashed brain. His temperature never went over 102·6°. A hernia cerebri, an inch and a half long, formed; I left it alone, and it subsided, and the lad made a perfect recovery in about six weeks.

Case No. 3.—A.G., *æt.* 23, miner. A hook fell a thousand feet and hit him on the head. He sustained a compound comminuted fracture, 3 in. by 1½ in., of roof of the skull, over the anterior right lobe of brain. The lobe was pulped. I could put my finger on the knobs of the roof of the orbit. He was conscious. I removed bone, brain, membrane, using strict asepsis. He had but one fit, and I discharged him in three months, and I am told he is mining again—an unavoidable necessity in his case. My sole difficulty was covering in the gap. Eventually I left it to nature, with excellent results. Neither his intelligence, nor his sight nor speech, nor any muscle, has departed from the normal.

Case No. 4.—H.H., *æt.* 15, admitted for bullet wound 3 inches below right knee. It went into the tibia. Bullet was said to be half an inch in length, but only quarter inch in diameter. My X-ray apparatus being out of gear, I cleaned and dressed and gave rest. At the end of a week there was pus in the knee-joint and osteomyelitis of tibia. I trephined tibia into the medullary cavity, and drained. I opened and drained knee. In a month the knee was well, and I could flex leg to a right angle. I then took three X-ray photographs, and saw and determined the position of the bullet. My location was faulty, for on trephining once more the tibia, and freely probing the cancellous tissue, I failed to get the bullet. The trephine opening healed readily, and the boy goes about his work as a farm hand as well as ever.

Case No. 5.—J.D.; seen in an emergency in the evening. He had a small wound in the right hypochondriac region, caused by a bursting beer bottle. Little could be made out in a brewery shed, so patient was sent home, with a dressing of cotton wool and iodoform. When seen next morning, there was evidence that all was not well, and, after consulting a colleague, we had him removed to the hospital, and I opened the abdomen in the middle line. Examination of the intestine showed nothing, but there was blood in the abdomen, and on cross-cutting over to the wound and examining the upper surface of the liver, a gash an inch and a half long was found. This was sewn up with silk, and then blood and clot washed away from the abdomen. Keith's drainage tube put in, and the abdomen sewn up. Apart from the anxiety of the first four days, all went well, and this young man is back at his work as usual. In connection with this case, I must record the very able assistance my colleague, Dr. Pulleine, afforded me, and the very effective nursing of my matron and ward nurses.

Case No. 6.—This case is instructive. A female child, *æt.* 9, admitted with every sign of intussusception. She had been treated for four days before admission. Within half an hour I opened the abdomen, and found it practically a bag of pus, with gangrenous patches all over the intestine. I sewed up, and kept this poor little one under morphia till death came. A noticeable feature was the absence of pain and tenderness over the abdomen.

Stone in the Bladder.—This is not very common on Gympie. I have met with two cases in women and two in men in five years. I dilated the urethra with Hegar's dilators; crushed and delivered in one woman. In the other I delivered without dilating. I did suprapubic cystotomy for the men. There were five stones, weighing 370 grains all told, in the one; phosphate of lime. In the second, the stone weighed 18 drams—a huge flat stone, with a nucleus of uric acid and a coating of phosphates. I crushed and removed the pieces. I sutured the bladder in Lembert's manner in both cases, and got primary union in the first. The second broke down but healed in a month.

I will end this paper by one further case. It shows what varied cases we get in country hospitals. It was "concealed accidental hæmorrhage of the gravid uterus."

Mrs. J.B., 43, thirteenth pregnancy. Placenta detached in a sealed uterus. The woman blanched; abdomen full and tense; uterus still more so; os not dilated. Patient was put on the table; ergotinine and 20 minims of liq. strych. injected. The strictest asepsis for self and the patient's genitalia; os dilated; child turned and delivered. Then the uterus was followed down, and placenta, black blood, and débris filled half a small bucket. A flabbier uterus I never felt. A hot uterine douche was used, and some contraction obtained. Four pints of saline subcutaneously, and more strychnine. All the measures used in bad collapse had to be employed. In 48 hours she had rallied. Her temperature never went over 101°, and she walked out of the hospital in 31 days.

A SCHEME FOR THE FORMATION OF A PROVIDENT ANNUITY SOCIETY FOR MEDICAL MEN.*

By J. H. G. Drummond, L.R.C.P., etc., Strathalbyn, S.A.

In his introductory remarks, Dr. Drummond dealt with the increasing difficulties medical men have in making provision for old age or chronic illness, and the need there was for such a society as he proposed. The great number of newly qualified men, and the constant stream of doctors from the overcrowded towns of England, was steadily and surely causing a congestion which even now was being seriously felt, but which must be manifested more in the near future, when the young men of our day, and in many cases our own sons, would be engaged in the struggle. He pointed out that the medical men in a democratic country did not even have the advantages of the home doctor, but were looked upon as a necessity, whose services should be as little requisitioned as possible, and remunerated by the smallest of fees. His education and position, with its corresponding increased expenditure, were not considered, and every possible means was provided for patients to get medical advice at the lowest cost, the consequence being that friendly societies opened their doors to wealthy tradespeople, bankers, squatters and lawyers—men who in many cases availed themselves of the societies in order to cheat the doctor of his hard-earned fees, and never expected any other benefit from their association with societies, which exist, or ought to exist, for the poor. This constant struggle will inevitably increase the medical man's unenviable record of being shorter lived than other professional men, as life assurance statistics disclose, and be the means of laying the foundation of illnesses and premature senility, which of necessity must compel him to withdraw from active life early; so that there must be some remedy discovered before these dire results have been attained. Dr. Drummond proceeded to say:—I am going to propose a scheme to you, by no means an original one, which I hope will be at least a partial remedy for the cases I have tried to pourtray. I think it should appeal to us all, but more especially to the younger practitioners, for they surely will feel the congestion even more than the older ones. There will come a time for them when their powers wane, their eyesight dim, and their hearing dull, and if the means by which they could put aside for a rainy day have not been present, then such a society as I propose will indeed be a boon for them. The scheme is essentially both provident and also benevolent—provident because each member will contribute an equal sum, benevolent because many members will join to whom the picture I have drawn presents no terrors, and they will never benefit themselves, but only their less-favoured brethren, by joining such a co-operative scheme. Before I left for England last year I wrote letters to the secretaries of the branches in Australia and New Zealand, telling them that I proposed making inquiries regarding home benevolent societies, and asking for their sympathy and co-operation if I were in a position to report satisfactorily on my return. I consider that now is an exceedingly opportune time for the formation of such a society—that is if South Australia will take the initiative—because the scheme can be completely thrashed out in the ethical section of the Intercolonial Congress which is so soon to be held in our city. One of the largest societies in Great

---

*Abstract read before the S.A. Branch of the B.M.A. at Adelaide, February 23, 1905.

Britain is the one which is associated with the B.M.A.—the Medical Sickness Annuity and Life Assurance Friendly Society, a great company with 3000 members, assisted by paid officers and actuaries, run on business lines, and providing bonuses for the medical men who are its members. It provides sick pay during times of illness or accident. The premiums payable are from *six* to *twelve* pounds per annum, covering an assurance of four guineas a week for any illness or accident which does not last more than six months, and two guineas afterwards. The annuity and life assurance policies have nothing to do with the society, but are provided for by extra premiums paid to the Rock, which gives a concession of 5 per cent. to members of the Benevolent Society. This society is then exactly on the lines of Australian societies which are working in the colonies at the present time. Life insurance companies and accident companies between them will provide sick pay, annuities, and death policies at these high premiums. Another and larger society, which has been in existence for over a hundred years, is that for the relief of orphans and widows. It is confined to London and its suburbs, and has a capital of £100,000. Epsom College has a benevolent scheme by which medical men who are incapacitated can be benefited; but I do not quite see that any of these supply the exact requirements of Australia. The society which appealed to me more than any I have mentioned is the Birmingham Benevolent Society, and I should like to give you a digest of its rules and objects. This society was formed in Birmingham just 81 years ago, and 71 medical men were its originators. There are now over 400 on the roll. Its objects are to help medical men who are permanently unfit to attend to their duties, and the widows and orphans of those who have received assistance. It has done so most nobly, for it has in the 81 years of its existence administered £21,000 in half-yearly grants and donations. In some cases the recipients have had large sums. Two medical men who had each been in the society for about 20 years received over £600 each, and I notice also that one widow has received over £1100. But these many and large disbursements have not materially weakened the society, for it possesses to-day an invested capital of close on £16,000. The society is evidently looked upon with a great deal of favour, for I notice that in the last reports 22 new members were enrolled in the year. The society has had the advantage of considerable outside sympathy and help, for £5600 has been donated by generous people either during their lives or at their deaths. I think you will readily confess that this result is startling, and is a wonderful example of what united action can accomplish. The management expenses are practically too insignificant to notice, being confined to printing and postages, for the committee and officers are professional men, and of course they hold honorary positions. Its radius of utility is confined to 50 miles around Birmingham, although there is developing a system of corresponding circles outside this area whose centres have an additional radius of ten miles. This unique position has been arrived at by an annual subscription of only one guinea, terminating when 21 years have been reached, and which may be compounded for by a lump sum at entrance of 16 guineas, or 17 if paid before seven years. No member can receive benefits until he has been five years in the society. There is no age limit for entrance nor for the cessation of annuities. It is an independent co-operative society, and has no connection either with the B.M.A. nor any life or annuity society. In drawing your attention to this society, I feel sure that if something on lines of a similar nature could be inaugurated here it would prove itself a boon and blessing to the members of our profession, and would meet with their approval and sympathy. Before proposing to you that you should adopt this scheme as the one which is best suited to our requirements, I should like to point out to you one or two facts that probably you all have noticed, but which will bear a little emphasis. As I said at first, the scheme is both provident and benevolent; the former because each member pays alike, and is a shareholder and entitled to its benefits; the latter, because many who join it will never need to call upon its funds and only aid it for the benefit of those whose advantages have not been so great. Secondly, no person who unfortunately has to appeal to it need feel that he is pauperised. Thirdly, it is not in conflict with any of those means which encourage thrift and suitable provision for the family after death. Fourthly, the premium is exceedingly small and will really never be felt as a yearly burden to be met. Fifthly, the annuity, though small, is sufficient to be an addition to any small income that the recipient may have, and the combined sum may enable him to live; at the same time, the annuity is not sufficient to tempt avarice nor to provoke fraud. These are the advantages; what are the difficulties which meet us? The first difficulty is the question of area. In a local society the area is small, with a maximum of doctors; in an Australian one the area is large, with a minimum of doctors. I would point out, in order to prove that this difficulty is not an insurmountable one, that the insurance societies (one of which can hold its head high amongst all those of the world) have been able to get over this difficulty, and they without that bond which holds us together—our profession. The second difficulty is the necessity for a greater outlay that confronted the originators of the Birmingham society. Did I not feel a confidence that the B.M.A. will accept the parentage of the society, I should dread to recommend the inauguration of such a society; but with the B.M.A. at its back I do not fear these dangers. The branches are of course a long way apart, but in reality they are very closely connected, and the machinery which will work them will also suffice to work the society; in fact, it is more than possible that the B.M.A. and the Benevolent Society will be reciprocally benefited by such an alliance. I cannot command sufficient directories to enable me to find out the number of medical practitioners in the colonies, and I have therefore taken the numbers which constitute the several branches, and I find there are 1245 members in Australia and New Zealand. I believe, in addition, there are about 120 medical men in Tasmania, which has no branch. Judging from those colonies the numbers of whose medical men I am acquainted with, I calculate that there are more outside medical men than there are in the branches, so that we have a total of about 2700 to 3000 doctors in practice. Birmingham has, I believe, about 1500 doctors in a 50 mile radius, so that practically we have twice as many men to draw upon as the Birmingham society has. Four hundred and twelve is presumably as many as were ever in the Birmingham society, that being the number mentioned in the 1903 annual report; so that I think we need not fear that the scheme will languish for want of numbers. This, I think, answers the objection of Western Australia, whose branch thinks that the smallness of the number of medical men does not warrant the scheme. And whilst I am speaking of the West Australia Branch, I may as well tell you the opinions of the other branches. Queensland favours the proposal, but considers herself too small a community to take the initiative. Victoria and Sydney both are in accord with the scheme, and New Zealand has a benevolent society which is trying to work with the same end in view. She is strong and healthy, although young. I have very little doubt that a cosmopolitan scheme which should embrace all the federated States would appeal to the society in New Zealand, and we should be able to co-operate with her. To return then, to the second difficulty. I think any increased expenses will really exist only at the beginning; and the B.M.A. branches would be justified in giving some help, with the prospect of being benefited by increased membership; and at least the members of the B.M.A. could be made acquainted with the advantages of connection with such a society without any outlay, and they provide a sufficient number to make the scheme a success without any appeal to the outside profession. These are the main difficulties. Others will readily present themselves. For example, the difficulties of investment, the arrangements for relief without any friction between the branches. But these are surely difficulties that can be overcome by a little judicious tact. Having pointed out the advantages of and the necessity for such a society, it but remains for me to very shortly point out how it can be worked. Firstly, it should be on a business basis, and the scheme when completed should be submitted to an actuary and registered in each colony under the Friendly Society Act. Secondly, a central board must be appointed by the votes of all the members of the several branches, preferably every three or five years; that this board shall sit in one of the capitals of the States. I would propose that Adelaide should be that capital, as I hope she has the honour—if there be an honour—of being the initiator of the scheme; this board to have control of the accumulated funds, but shall as far as possible make its investment in the States from which the money is derived. On the recommendation of the branches, they shall judge of the eligibility of the claimants for assistance. Secondly, each branch at the annual meetings shall appoint a state benevolent committee, which shall collect the subscriptions, advertise, and in other ways increase the scope of the society, and shall investigate the bonafides of the applicants, and also recommend securities for the investment of funds. Thirdly, that the society shall, like the B.M.A. Society at home, amalgamate if possible with a large life assurance and accident assurance company, so that besides the annuity scheme members may have the advantage of good and sound life assurance, and sickness and accident pay at some concession. Fourthly, that members need not be members of the B.M.A., but if not they must pay more. I would suggest that an inclusive sum of three guineas shall cover membership in the association and also in the provident society, and that those who wished to avail themselves only of the provident scheme must pay two guineas. I think in this way the B.M A could be benefited by the daughter society. Of course such questions as age limit, the value of the pension, must be left for the discussion of delegates from the branches and the framers of the scheme. I have only put before you to-night the advantages, the difficulties, and the roughest *modus operandi*. If the provision which exists in the Birmingham society—that nobody can receive any benefit before he has been a member for five years—be carried out, and thus permit the society to get a firm footing, I fail to see any possibility of the scheme not paying; and if there is a sliding scale, say of £20 to £40, for annuities, the society can at least leave a large margin, so that without some disastrous calls were made there would always be sufficient to provide something for the applicants. I have every confidence in the success of the scheme, and feel sure that it will appeal to all—both to those who may be possibly benefited and to those who so frequently respond to the appeals which we often read of in the papers on behalf of doctors, who have through no fault of their own become stranded in the struggle for existence, but to whom personally the scheme will not be applicable; and I ask you therefore to-night to lay its foundations.

A TRAVELLING NEEDLE.

By T. G. Beckett, L.R.C.P., etc., Hon. Electrician, Alfred Hospital, Melbourne.

The following case, illustrating the great distance that may sometimes be traversed by a needle in the human body, came under my notice recently. A woman, aged 60, presented herself at the Alfred Hospital complaining of pain in the foot, which, she said, she believed was due to a needle that she got in her hand, under the thumb-nail, fifteen and a half years before. An X-ray examination on the screen showed plainly a needle, just under the dorsal surface of the foot, on the same side, opposite the distal end of the fifth meta-tarsal, and exactly corresponding to her description of the piece of needle she acquired 15 years before, viz., almost an entire needle, with about ¼ in. of the eye end missing. The needle was easily removed by Mr. O'Hara. It was nearly 1¼ in.—or exactly 3 cm.—in length, and was a No. 7 sewing needle, with ¼ in. of the eye end missing. It was black, but very slightly corroded; in fact, an examination of the fractured end by a strong lens showed it, although black, as sharp a fractured surface as if quite recently broken.

At first sight, the story seems incredible. It is a well-known fact that needles do sometimes travel distances; but I have not been able to come across any case on record in which such a distance, the greatest length possible, has been traversed, although I once before removed an entire needle from the calf of a man's leg, which, he informed me, he had got into his hand 23 years previously. On looking into the evidence carefully I am inclined to credit the story, for the following reasons:—

1. The woman seemed fairly intelligent, and gave a clear and connected account of it all. The following facts to some extent quite corroborate her:

2. A careful X-ray examination of her right hand and whole of her arm failed to reveal the missing needle. It could not possibly have been still there and not been visible.

3. She was quite positive in asserting that the needle was never removed, although an attempt at the time failed. Neither did it ever work out. She is also quite certain that she never got a needle in her foot; I could discover no trace of any puncture. in it. It does not seem likely that an intelligent woman could get another needle in her without knowing and remembering it, or ever forget if it was extracted.

On the other hand it was surprising that the needle should show practically no signs of corrosion. I have seen a needle completely blackened that was extracted after being in only two hours, and I have taken one out after years showing no more than blackening. It is impossible to guess the route travelled by the needle, but it was probably a subcutaneous one that avoided entering the thoracic and abdominal cavities. A course quite conceivable, and perfectly safe one, would be up the back of the hand and arm, down the back of the shoulder, down the back to the leg.

She seems to have suffered nothing worth mentioning during the time; the only thing I could discover was she had for a time an enlarged gland in the axilla, and lately has suffered with sciatica.

The question of needles travelling is of some practical importance in this way: A patient consults a surgeon, and the question arises in regard to such a case. if the needle is not to be easily extracted, is it safe to leave it ? I have seen needles that have remained in the same spot for years, but I have always noticed that in these cases the X-rays showed a needle without a point. This is probably one factor that determines the likelihood of travelling, or remaining quiescent, but is not the only one. Similar cases have probably come under the notice of some of the readers, of the *A.M. Gazette*, and I should much like to hear the facts of them.

CLINICAL AND PATHOLOGICAL NOTES.

A CASE OF ANGIO-NEUROTIC ŒDEMA.

R.H., *æt.* 28 years, admitted into Rydalmere Hospital as an imbecile. He had slight constant tremor of both hands, knee-jerks exaggerated, other reflexes normal; pulse of low tension, heart sounds faint, no bruit; urine normal. He suffered from recurring attacks of œdema. The œdema would occur in various parts of the body, the lips, arm, hand, foot or genitals being attacked at different times. Sometimes the œdema was limited and circumscribed, only a lip or the penis being affected. At another time it would be more diffuse, the hand and the whole arm being swollen. The attacks showed no periodicity, and were not accompanied by any change in his mental or physical condition, and could not be attributed to any definite cause. The swelling would remain from 24 to 48 hours, coming up quickly and subsiding more gradually; there would be no redness of the skin, but usually some itching.

On June 5th, at 3 a.m., his lower lip was noticed to be swollen. At 7.30 a.m. there was extensive swelling of both lips, the face, and neck. He was breathing without difficulty, and his voice was natural. At 10 a.m. he had a sudden attack of dyspnœa, and died in a few minutes.

Only a partial post-mortem examination was allowed, which was made 24 hours after death. The face, lips, neck, and tongue were greatly swollen; the epiglottis was pale and swollen to about three times its natural size; the mucous membranes covering the thyroid cartilages were pale and swollen, nearly touching each other; the trachea was congested.

The patient's mother gives the family history as follows:—R.H.'s maternal grandmother was subject to "large white swellings," either on slight injury or without any cause, and that she died suddenly from "swelling of the throat." She (the mother) once had her tongue greatly swollen, for which she could attribute no reason, "her doctor never having seen anything like it." A maternal aunt and one of her sons suffer from "the same sort of swellings as the grandmother." His youngest brother is an epileptic. No account of any other neurotic tendencies in the family could be obtained. The family history is of interest in pointing out the hereditary tendency of the disease. Osler, in his "System of Medicine," 1898, mentions a family in which there were 22 cases in five generations, two of whom died of œdema of the glottis.

To the courtesy of Dr. Geo. E. Miles I am indebted for permission to make use of these notes. GUY P. U. PRIOR,

M.R.C.S. (Eng.), L.R.C.P. (Lond.).

Hospital for Insane, Rydalmere.

REVIEWS AND NOTICES OF BOOKS.

MALIGNANT DISEASE OF THE LARYNX. By P. R. W. de Santi, F.R.C.S. London: Baillière, Tindall and Cox. Sydney: L. Bruck. 1904. Crown 8vo. Price, 4s net.

The monograph under notice is especially valuable as representing the views held in England as to the correct operative treatment of laryngeal cancer. In its production the author has been associated, more or less, with the two foremost authorities in the mother country —namely, Mr. Butlin and Sir Felix Semon. The main contention in this work is for the more frequent performance of Thyrotomy in cases of intrinsic disease; those cases too far advanced for this operation to be treated by partial laryngectomy, the operation of total extirpation receiving less support from British than from Continental surgeons. We are entirely in accord with the author in his advocacy for thyrotomy in preference to intra-laryngeal operations for malignant disease; but when it comes to a question of partial laryngectomy versus complete extirpation under the most approved methods, the reviewer has, from personal experience, come to regard the latter as the safer operation of the two. Of course there are very serious inconveniences to be put up with by those who have successfully undergone complete extirpation—notably loss of voice,—and recent improvements in the artificial larynx have not brought the instrument to such a stage of perfection as to tempt the patient of his own choice to keep it in constant use. Of course, when total extirpation is reserved for those cases considered too far advanced for partial laryngectomy, the results must be very discouraging; but if considered as an alternative operation, the most frequent source of danger connected with the lesser operation—namely, inspiratory pneumonia—may generally be avoided. A careful study of this treatise will well repay anyone interested in operations on the larynx for malignant disease.

G.T.H.

HANDBOOK OF DISEASES OF THE EAR. By Richard Lake, F.R.C.S. Second edition. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1904. 8vo. Price, 6s net.

The book under notice, although of small dimensions, as its name implies, furnishes an excellent foundation for the intelligent treatment of diseases of the ear. The type is all that can be desired, and the illustrations, especially those of bone sections, of quite exceptional merit. There are also two coloured plates, each giving 12 pictures of views through the ear speculum, which are more successful in tinting than is usually the case in such attempts. The book concludes with a chapter on the "Influence of Diseases of the Ear on Life Assurance," which materially adds to its value as a guide to the general practitioner. G.T.H.

ESSENTIALS OF DISEASES OF THE EAR. By E. B. Gleason, M.D. Third edition. Philadelphia and London: W. B. Saunders & Co. Melbourne: Jas. Little. Price, 4s net.

This excellent little work on otology suffers, in our opinion, in being cast in the mould of the Question Compends. Whatever may be the advantages of the question and answer system in treating such subjects as, say, anatomy, and subjects dealing with matters of fact, it seems to us that to attempt to teach the practical branches of medicine and surgery by the methods of catechism is a trifle short of childish. As a matter of fact, the work under consideration would not only not suffer, but gain materially, by the omission of the questions, which, after all, merely serve as headings to the different subjects. The work is well up to date, and is well illustrated, containing, in the form of tables, important information not usually found in elementary works on ear disease. G.T.H

THE JUSTICES' MANUAL AND POLICE GUIDE. Compiled by Daniel Stephen, Sergeant of Police. Sydney: Angus and Robertson. 1905.

A copy of which has been received from the publishers is a handy little 12mo. volume of 348 pages, costing 5s 3d posted. It is admirably adapted for the purpose for which it is intended, namely, as a book of reference to the numerous acts and omissions which constitute offences, punishable in New South Wales, under the Common Law, and under the State, Commonwealth and Imperial Statutes. Justices and the police will welcome it as a substitute for other books including the same subject matter which may be too large to carry about. It will be useful to the general public, since in recent years Parliament has seldom let a session pass without making some apparently harmless act or omission a statutory offence, to the end that no one knows when he may be called to answer for what he may have done or left undone in ignorance of statutory provisions. Medico-legal matters are necessarily duly included in its pages, so that medical practitioners will find the information, particularly applicable to their practice in New South Wales, a useful supplement to their general text-books on medical jurisprudence. R.H.T.

MEDICAL ELECTRICITY: A Practical Handbook for Students and Practitioners. By H. Lewis Jones, M.A., M.D., F.R.C.P. (Lond.), Medical Officer in charge of the Electrical Department of St. Bartholomew's Hospital, London, etc. Fourth edition, with illustrations. London: H. K. Lewis, Gower-street. 1904. Price, 12s 6d.

This well-known handbook of Dr. Lewis Jones has now reached a fourth edition, and the author has taken this opportunity to revise the whole of the subject matter and to incorporate some new chapters. The subject of high frequency electricity has been dealt with in a special chapter, which contains a full explanation of the theory of high frequency currents and of the apparatus required for their practical application in the treatment of disease. Dr. Jones says, and we think very truly, that "high frequency applications are of decided value as a therapeutic method, and in due time they will occupy a well-deserved place in electro-therapeutics." However, like all new methods of treatment, the use of high frequency electricity has been much overdone and indiscriminately advocated in the treatment of all sorts of morbid conditions. There can be no doubt as to the special effect upon respiration, circulation, and metabolism exerted by the high frequency currents, but it must be a matter of time and careful collating of experience before definite opinions can be expressed on their value as a therapeutic agent. Dr. Jones has also expanded his chapter on the X-rays, and this may be taken as an expression of the current estimate of the value of this method of treatment. This book is full of valuable information on all matters connected with the application of electricity to the diagnosis and treatment of medical and surgical diseases, and it can be recommended as a safe guide to all interested in this class of work. G.E.R.

SURGICAL NOTES FROM FOUR CONTINENTS AND THE WEST INDIES. By Nicholas Senn, M.D., Ph.D., LL.D., Rush Medical College, Chicago.

These notes, reprinted from *American Medicine*, in which journal they appeared from time to time from June, 1902, till June, 1903, are well worth reading. Professor Senn, with his world-wide reputation, was, of course, well received wherever he went, was shown everything, and had the opportunity of talking to and watching all the great surgeons at their work. The Professor is a keen observer, and made the best use of his unique opportunities. His remarks on their methods of operating, and of the various means adopted for sterilising the hands, will be found most interesting and instructive. C.P.B.C.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH MARCH, 1905.

THE EDUCATIONAL VALUE OF MEDICAL SOCIETIES.

In a recently published volume by Professor Osler, Regius Professor of Medicine in the University of Oxford, there is an address delivered at the Centennial celebration of the New Haven Medical Association, in which the advantages to be derived from attendance at the meetings of medical societies is graphically pourtrayed. He considers the first, and in a sense the most important, function of a medical society is "to lay a foundation for that unity and friendship which is essential to the dignity and usefulness of the profession." The society comes in as a professional cement to bind together the older and younger members. "The meeting in a friendly and social way should lead to a free and open discussion of differences in a spirit that refuses to recognise differences of opinion on the non-essentials of life as a cause of personal animosity and ill-feeling." The personal quarrels of medical men, particularly in the smaller towns, are unfortunately only too well known, and are frequently accentuated by a want of meeting in a social manner, when angles can be rubbed off and misunderstandings can be healed. For, after all, the quarrels of doctors are mostly about petty and miserable trifles and annoyances—"the pin-pricks of practice"—which the good fellowship and intercourse of the medical society might reduce to a minimum.

Further, the medical society should be the means of education to the medical practitioner, enabling him to recognise his own weak points, and preventing him from trading on an old stock of knowledge and experience. Professor Osler here very properly lays stress upon the immense advantages to be gained by the exhibition of instructive morbid specimens, since it is only rarely that the general practitioner has the opportunity of following up his cases to the post-mortem room; and nothing can be more instructive than the careful examination of morbid specimens, taken in conjunction with a clinical history of the case and its symptoms. Too often the reports of cases are diffuse, and the salient points are buried in a mass of extraneous matter, which only wearies the audience, and the educational value of the case is thus to a large extent lost.

The medical society should be an important antidote to slovenliness in practice, and should be the means of stimulating the practitioner to keep up habits of scientific study. Only a comparatively few of us have the privilege of being attached to the large hospitals and of being brought into contact with the keen enthusiasm of the student. There are very few meetings of well-conducted societies from which the practitioner may not go away, having his enthusiasm stirred by contact with other minds, and from which he may not carry away something which will help him in the daily practice of his profession. The preparation of papers and reports of cases is itself of great educational value, conducing to habits of careful observation and scientific reasoning.

In the larger cities of all these States there are medical societies to which every medical practitioner should count it an honour to belong; but in some of the country districts there are at present no such associations. Beginnings, however, have been made, and in New South Wales there has been recently established a Border Medical Association, embracing medical practitioners practising on the borders of New South Wales and Victoria, and also a Western

Medical Association including the medical men in the Bathurst district. We look forward to the time when the British Medical Association will be the one large medical organisation throughout Australia, with its Branches and Divisions in all the States, so that every medical practitioner may have the privilege not only of membership but of attending meetings of the Association for social and professional intercourse.

We would urge upon all medical practitioners the consideration of the advantages of membership of medical societies, to some of which we have referred, and we hope that all our medical organisations will receive a large accession of new members this year.

ACUTE RHEUMATISM.

WITH the advance in our knowledge of pathological processes, and particularly of the various clinical manifestations of bacterial growth we have been obliged from time to time to review the position of some diseases which have been assigned a definite place in our nosology. Formerly a definite group of clinical symptoms—namely, redness and swelling of the joints, fever and cardiac complications, was known as rheumatic fever or acute rheumatism; and while some authorities were strong in the assertion that this disease was due to uric acid or some organic chemical substance circulating in the system, others were equally sure that the disease must be classed amongst those due to bacterial infection. The discovery of WASSERMAN and TRIBOULET of an organism in cases of this nature, followed by the work of POYNTON and PAINE, on the "diplococcus rheumaticus," and its relation to simple and malignant endocarditis, seemed to definitely clinch the argument that "acute rheumatism" and "rheumatic" endocarditis were due to the invasion of a micro-organism.

To a certain degree, however, clinical observations were ahead of pathological investigations, and it was recognised that while a certain number of cases of "acute rheumatism" readily responded to the treatment with salicylates, other cases did not in the least react to these drugs; and when the painful swellings of the joints which occurred in the course of scarlet fever and gonorrhœa (to take the two most commonly recognised diseases associated with joint swellings in former years), and some forms of endocarditis assuming a malignant type, did not respond to this line of treatment, it was recognised that there must be some essential difference between these classes of "rheumatic" disease.

Examination of the vegetations on the cardiac valves in cases of malignant endocarditis, revealing the presence not invariably of one definite organism but of several different kinds, showed that the disease "malignant endocarditis," though appearing to follow upon simple "acute rheumatism," was not a distinct clinical entity, and the various types of that disease are definitely recognised to be due to different organisms which have invaded the system and found a *locus minoris resistentiæ* in the cardiac valves.

Multiple affection of joints was a well-known phenomenon in pyæmia and septicæmia, and it was not a great step to recognise that some of the forms of acute joint disease which were clinically grouped as "acute rheumatism" must be due to the invasion of the system by the bacteria of commonly-called sepsis—namely, streptococci, staphylococci, etc.,—and thus could be explained the failure of the patient afflicted with "rheumatism" of this nature to respond to treatment with salicylates. In a certain proportion of cases characterised by the commonly recognised symptoms of acute rheumatism the *fons et origo mali* is a definite organism—the diplococcus rheumaticus,—

to which, or to its toxins, the salicylate group of drugs appears in some way to be specially antagonistic, and for this class of case we may, if we wish, reserve the name "acute rheumatism" or "rheumatic fever." But we must recognise that other organisms can give rise to a similar group of symptoms practically indistinguishable clinically, and yet pathologically distinct.

Bearing in mind these conceptions, the practical inference to be drawn is that in cases presenting the syndrome of acute rheumatism, in which the salicylates fail to relieve the symptoms in the course of two or three days, some organism other than the diplococcus rheumaticus is probably at work, and instead of lowering the patient's vitality by pushing the salicylates in the hope of effecting a cure by heroic doses, we should adopt an entirely different therapeusis, and remember that the patient is suffering from a septicæmia, and rather requires a stimulant and supporting treatment.

THE MONTH.

Defects in the New South Wales Poisons' Act.

We have previously pointed out the urgent need that exists for the amendment of the Poisons' Act in New South Wales. While it prohibits the sale of poisons, it does not prevent the supply of them free of charge. Further, it is well known that powerful poisons, such as cyanide of potassium, which are used for photographic purposes, can be obtained from any photographic warehouse without any restriction, and need not be marked with the word "poison." Some disinfectants which are powerful poisons can be obtained in the same way A bill to amend the Poisons' Act in these directions was drafted some time ago, but has not yet received Parliamentary approval. Recently a deputation from the Pharmacy Board waited on Mr Hogue, the Chief Secretary, to urge upon him the importance of this amending bill being passed by Parliament next session. It was also pointed out that the board did not receive any money for the administration of the Act, and was entirely dependent upon Parliament for funds. Mr. Hogue received the deputation sympathetically, and promised to see what could be done to secure the desired ends.

The Treatment of the Insane in Victoria.

Some 15 months ago a Lunacy Act was passed by the State Parliament of Victoria, but no steps had been taken by the Government to carry out the wishes of Parliament Coincident, however, with the arrival of Dr. W. E. Jones, the Inspector-General of the Insane for Victoria, the Executive Council authorised the issue of a proclamation to bring this Act into force on March 20th. Among other things, this Act provides for the establishment of receiving houses, so that persons who are suffering from the acute forms of mental disease may not be associated with criminals in the police court cells, but received into suitable institutions where appropriate treatment may be given them. Nothing, however, has so far been done by the Government to secure suitable places as receiving houses, and the same pernicious system that has prevailed in the past of placing borderland cases in gaols must be continued, at any rate for a time. The Act also provides for a very strict system of supervision over private asylums. Another most desirable reform is instituted by this Act, namely, the removal of all officers and employees in the Lunacy Department from the authority of the Public Service Commissioner and their being placed under the sole control of the new Inspector-General of the Insane. We understand that Dr. Jones is at present making a careful inspection of all the existing asylums and their management, and he will, no doubt, furnish a report to the Government with a view of securing the introduction of the many reforms which are so urgently needed for the efficient treatment of the insane in Victoria.

Proposed Maternity Hospital for Hobart.

Some time ago a movement was initiated to provide a maternity hospital for the city of Hobart. In Launceston, the Victoria Hospital for Women has more than justified its existence, and it is considered that a similar institution is necessary for the capital city of Tasmania. A sum of nearly £850 is in hand, and as soon as £1000 has been secured operations will be commenced, and steps are being taken to arrange for the raising of the balance of the money required.

The Royal Alexandra Hospital for Sick Children, Sydney.

As previously noted in our columns, definite steps have now been taken to secure for Sydney and suburbs a hospital for sick children, and we hope that before very long we shall have an institution thoroughly well equipped according to most modern ideas and one worthy of the metropolis of New South Wales. For many years the work of treating sick children in this hospital has been carried on under most disadvantageous conditions in a building at the Glebe, consisting of two or three dwelling-houses, which have been adapted to the requirements of a hospital; but the accommodation has been inadequate, and the buildings generally quite unsuitable for this purpose. After prolonged delay, a site was secured, some £20,000 has been given or promised towards the building fund, a contract for a portion of the building has been let, and the work is now in active progress. But about £15,000 is still needed to provide for the necessary fittings and furniture and the erection of a nurses' home, and the committee are now appealing to the public for subscriptions to enable them to complete the work. The sight of young children suffering from sickness through no fault of their own must appeal to all charitably disposed persons, and we trust that before long the committee of this worthy institution may be able to announce that the requisite funds have been subscribed.

Infantile Mortality in Queensland.

In our last issue we referred to a report by Dr. Clatworthy on the excessive infantile mortality in South Brisbane, and to the necessity for more stringent legislation dealing with the protection of infants. Last month a deputation of medical men, including Dr. Ham (the Public Health Commissioner) and Drs. Lockhart Gibson, Kerr Scott, Page, Wield, Salter, Turner, and Robertson, waited upon the Home Secretary to discuss the administration by the local authorities of the clauses of the Act relating to the protection of infantile life. The deputation pointed out the serious defects in the present administration of the Act, and urged the necessity for new legislation on the lines of the South Australian Act. Mr. Airey, who had already discussed the subject with Dr. Ham and the Society for the Prevention of Cruelty to Children, expressed his appreciation of the visit of the deputation and his sympathy with their requests. He stated that the machinery at the disposal of the Government was insufficient to prevent the evils arising from baby farming. He promised to bring the whole subject before the Cabinet, and in view of the urgency of the matter he thought that there was no doubt that the Government would be prepared to introduce legislation based on the lines of the South Australian Act.

Milk as a Purveyor of Disease.

We have heard much lately in the daily press of prosecutions for the adulteration of milk with water and various chemical preservatives, and in the interest of the public health the supply of pure milk is one of the most important factors in our daily lives. But a milk may be pure, *i.e.*, free from adulteration with water or chemical preservatives, and yet be a source of extreme danger from its containing the organisms of infectious diseases, and it is most important that means should be taken to ensure that our milk supply is free from contamination with the organisms which are recognised as the causes of diseases of this nature. The registration and supervision of dairies which has been secured by Act of Parliament in some of these States is directed to attain this object, and in a recent address before the New South Wales Sanitary Inspectors' Association, Dr. W. G. Armstrong, the City Health Officer, dwelt upon the importance of recognising that milk infected with the organisms of infectious diseases, such as typhoid fever, scarlet fever, and diphtheria, is a common cause of the outbreaks of epidemics of these diseases. He pointed out that the notification of infectious disease, particularly amongst dairymen, their families, and employees, was a most important step in the prevention of these milk-borne epidemics, and illustrated his remarks by referring to the fact that since the year 1857, 250 epidemics of typhoid fever, scarlet fever, and diphtheria had been traced to milk infected at the dairies. The strictest administration of the Dairies' Supervision Act and that section of the Public Health Act which dealt with the notification of infectious diseases is therefore the most essential part of the campaign against the occurrence of disease epidemics.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

Queensland.

A GENERAL meeting of the Branch was held at the School of Arts Hall, Brisbane, on Friday evening, March 3rd. Seventeen members were present and two visitors, Drs. Lulu Ure and Hutton.

After the minutes had been read and confirmed, the Secretary reported that a letter of sympathy and promising assistance had been sent to Mrs. Eames; that the General Secretary had been asked to have Dr. Alexander Francis appointed member for Queensland on the General Council, and that the Council, after deliberation on the question of a compulsory subscription of £2 2s to secure the *A.M.G.* as well as the *B.M.J.* to each member, had decided not to advocate any change.

The names of six new members were announced, and Dr. Wm. Ryton Kelly, of Croydon, and Dr. Donald Cameron, of Mount Morgan Hospital, were nominated for election.

A communication from the Admiral concerning the desirability of forming a medical naval reserve was brought forward.

Dr. GIBSON read a paper, "Post-mortem of a Case of Pulsating Exophthalmos" (see p. 107), being further notes on a case which had already come before the Society, and the details of which many of them remembered well.

Dr. HIRSCHFELD read a paper on "Spring Hill Fever." (See page 101.)

Dr. ROBERTSON congratulated Dr. Hirschfeld on his exhaustive description of an illness which appeared to him to be typical of "dengue."

Dr. TURNER said that the subject chosen was of very present interest, as every doctor in Brisbane was seeing many cases of it daily. It was a pity to give it a new name, as if it were a distinctive disease. It was infectious, analogous to influenza, but he could not admit that Dr. Hirschfeld proved it to be a place infection The fact of women being most affected is common to all infectious diseases, and perhaps is due to their nursing the cases. In all infectious disease the first case is imported, and generally affects a child or perhaps a servant, who is specially exposed to infection, as she comes in contact with tradespeople and all others who come to the house. He had not observed an enlargement of the liver, and thought that the enlargement of the spleen, if less than that which occurs in typhoid, must be very hard to diagnose. He had noticed the characteristic rash of "dengue" on the palms and soles in several of his cases, followed, too, by the characteristic itching. Increased menstruation occurred in most pyrexias. As regards diagnosis, he did not think that the early symptoms, if observed from the start, would readily be confused with typhoid; from measles, the want of the catarrhal symptoms distinguished this epidemic, and he had not yet seen a case which he could mistake for scarlatina. Influenza resembled it most closely, and there is no evidence that in either disease a previous attack defends. There was no mention made of relapses, which he found were common in private cases, and in which great depression was very specially evident.

Dr. LOVE was glad the matter had been brought up while the disease was still among us. He considered that day by day it was getting more like the 1898 epidemic of dengue, though the rash was not so characteristically measly. He cited Davidson's description of dengue, and stated how nearly the present case resembled it. The vomiting so frequent in children he considered due in part to want of care in feeding. The increased menstruation and miscarriage he thought was just as frequent in influenza. In the 1898 epidemic the abdominal symptoms were just as frequent as now. The glandular swellings seen in dengue differed from those of plague in being in the glands themselves, not in the periglandular tissue, and in not being nearly so tender. Still, they might be confounded with those seen in pestis minor, though, as a rule, they were much more widely distributed. In a case of doubt, puncture would always differentiate. Cases with delirium, he thought, were rare. Relapses are common, and may come on early. He had seen some cases in which dengue and typhoid existed concurrently. Taken all round, the epidemic corresponded very closely with that of 1898 in every detail. With regard to etiology, the last edition of Manson describes a micro-organism found in the blood, and states that it may be conveyed by the mosquito.

Dr. CARVOSSO thought that the second rash had been smaller and more punctiform than in the epidemic of 1898. Relapses he found frequent, and in many cases followed the eating of fruit. Headaches were severe and frequent in adults. In many cases there was severe pain in the abdominal muscles and intercostals. Anorexia and sleeplessness were marked symptoms.

Dr. LULU URE had noticed particularly the exhaustion following the illness. Vomiting, as a late symptom, was marked, and persisted often after patients had left their rooms. In the earlier cases she had noticed no rashes at all, though in later cases they were frequent. The tenderness of the glandular swellings was not so marked as in plague.

Dr. KERR-SCOTT had seen much delirium in typical dengue.

Dr. MCLEAN remarked that this fever was establishing records of attendance both in the hospital wards and in the out-patient departments. The out-patients seemed to complain chiefly of depression and anorexia.

Dr. WIELD showed a diagram illustrating the house-to-house spread among the earlier cases met with in his practice.

Dr. HIRSCHFELD, in reply, stated that he still thought there were marked differences between this epidemic and the dengue of 1898. With sufficient practice the enlargement of liver and spleen was easily estimated. The abdominal pain in certain cases he believed to be peritonitic.

The PRESIDENT thanked Dr. Hirschfeld for his paper, and the interesting discussion to which it had given rise.

South Australia.

THE first monthly meeting of 1905 was held at 8 p.m. on Thursday, 23rd February, 1905, at the Adelaide University. The President (Dr. C. W. Hamilton) presided over an attendance of 21 members.

A sub-committee was appointed to meet a sub-committee appointed by the University of Adelaide to consider a letter received from the Admiral as to the formation of a medical naval reserve.

Dr. DRUMMOND read a paper on "The Formation of an Australian Medical Provident Society." (See page 113.) The consideration of the matter was postponed until the April meeting, before which the writer will obtain an actuary's assistance and Council's co-operation.

Dr. Reissmann showed the following specimens:—

Tubercular Disease of the Lung.—At the extreme apex of the upper lobe is a small cavity; further down and to the outer side are several old cavities with dense walls. Througout the rest of the lung are miliary tubercles and commencing caseation; only at the base is there a small patch of comparatively healthy lung.

Tubercular Disease of the Lung.—The specimen shows a recent cavity devoid of any capsule, the wall being formed by lung tissue. (Compare specimen No. 9.) The cavity is traversed by a naked blood-vessel. On the right side of the specimen is an area of tubercular consolidation.

Tubercular Disease of the Lung.—The disease is most advanced at the apex, where there are two cavities. The remaining part of the lung is studded with miliary tubercles.

Section of Ovarian Tumour.—The section shows columns of cubical cells and a large mass of myomatous tissue. The latter invades the columns of cubical cells and breaks them up into islands.

Tubercular Glands in the Great Omentum. (Specimens numbered 10 and 11 are taken from the same patient.)—The great omentum is seen from behind; above is the transverse colon. Note the almost complete absence of fat. In the omentum are a number of small yellow caseating glands and one large one, the size of a hen's egg. Between this gland and the peritoneum covering the bladder is a broad adhesion (preserved in the specimen). The adhesion is free from blood-vessels. The gland derives its blood supply from above; it is in the omentum. The patient had extensive tubercular disease of the lungs. There were also numerous ulcers in both the small and large intestine. There were many caseous glands in the mesentery and also in the anterior mediastinum, but none in the posterior mediastinum. [N.B.—When tubercular disease extends from the abdominal lymphatic glands to the thorax it usually does so via the anterior mediastinal glands. The path of infection in this case was probably first in the lungs, then intestines, later the abdominal lymphatic, and lastly the anterior mediastinal glands.

Sarcoma in each Ovary.—The sarcoma has in each case been removed entire with the corresponding Fallopian tube. The growth does not involve the tube. Each ovary is seen to consist of a dense portion (solid, hard, and yellowish white), and a soft portion (white and gelatinous). The former consists of cubical cells, the latter of myomatous cells. These growths were removed from a woman, aged 34. The patient went through her fourth confinement in July, 1904 (the infant died at three months). In November, 1904, menses returned, and since then, with interval of a day or two only, there was a daily vaginal discharge of blood and slime. In the last week of December, 1904, patient first noticed that her abdomen was getting large. First seen by me on January 8th. I discovered the presence in the abdomen of the growths now exhibited. The growths were removed on January 12th; but at the time of the operation secondary deposits were discovered in the omentum and in the liver. There was a small quantity of yellowish mucoid fluid in the peritoneal cavity. Patient rapidly recovered from the operation, and went home feeling fairly well a fortnight later. She was treated with X-rays three times a week, in the hope that these might have some retarding effect on the development of the secondary deposits. On February 6th she became jaundiced; this then rapidly deepened, and the patient died about a week later—*i.e.*, about three months after the appearance of the first symptom.

Aneurism of the Ascending and Transverse Arch of the Aorta.—Note atheromatous patches in the first part of the aorta. There is a dilatation of the artery immediately above the semilunar valves; beyond this a constriction marks the line of reflexion of the pericardium; beyond this is the great sac of the aneurism, still partly filled with recent clot. The pressure on the innominate artery has almost obliterated its lumen. There is an ulcer in the right main bronchus, from which there was slight hæmoptysis a few days before death.

History of the Case.—The patient contracted specific disease 20 years ago. He was treated for one week only. He has had a life of hard work, and has been accustomed to carry heavy loads on his back. Illness commenced in May, 1902, with pain in the arms, and later also over the second rib to the right of the sternum. He was first seen by me a few weeks later. There was then slight fulness over the second rib and a heaving impulse; no thrill. The apex-beat was not felt, owing to the presence of emphysema. No murmurs. The aortic second sound was accentuated and ringing. There was no diastolic shock at the apex. Tracheal tugging was present. The aneurism was therefore recognised at an early stage. The patient was immediately sent to bed and treated by rest, restricted diet (Tufnell's method), and large doses of iodide of potassium. Later he had a number of rectal injections of gelatine. He declined to submit to subcutaneous injections of gelatine. The patient also took vasodilators, nitrite of potassium, erythrol-tetranitrate, and amyl nitrite, also calcium chloride, with the object of assisting coagulation in the sac, and, lastly, morphia. He failed to carry out the treatment. His aneurism grew steadily larger and pressure symptoms became extreme.

May 26th, 1902.—The right pulse was smaller than the left.

June 7th.—A systolic murmur appeared at the aortic base.

June 11th.—The murmur was no more heard. The right pupil was larger than the left.

July, 1903, *i.e.*, 13 months later, severe cough, cyanosis and dyspnœa.

October.—Right arm and hand cold and almost pulseless. Left hand warm and the radial artery pulsated normally.

February, 1904.—The patient was sitting up in a chair and leaning far forward. He was cyanosed. His facial expression exhibited utmost distress, fear, and anguish, and his eyes seemed to be darting from their sockets. Large beads of cold perspiration covered the right side of his head, but the left side was warm and dry. The jugular veins were greatly distended. A large vein carried blood from the chest to the abdomen, towards the right side of the umbilicus (the anastomosis of the abdominal branch of the internal mammary, with the deep epigastric vein.) The right carotid artery was almost pulseless, the left full. The right pupil remained larger than the left. The man looked as if in the act of being strangled. Then there was slight hæmoptysis. A few days later he died from exhaustion in extreme pain.

N.B.—This specimen is now 12 months old. It illustrates the permanent preservation of colour obtained by the Kaiserlin method of mounting.

Victoria.

On the evening of January 30th the President (Dr. H W. Bryant) and the members of the Council of the Melbourne and Victoria Branch entertained Drs. W. H. Crago and G. E. Rennie, of Sydney, at dinner at the Port Phillip Club Hotel, Melbourne.

After the toast of "The King" had been duly celebrated, the President proposed "Our Guests." Drs. Rennie and Crago were known to us as two of the most active and enthusiastic members of the Council of the New South Wales Branch of the Association, and their loyalty to all that pertained to the welfare of the Association and the profession as a whole was unexampled. He thanked them for their presence, and hoped that they would leave Melbourne with a better understanding of the position of the local Branch.

Dr. Crago at that stage merely thanked the members for their reception, and trusted that he would be given an opportunity of speaking later, after hearing what other members had to say as to the present position and future prospects of the Melbourne Branch.

Dr. Rennie, in his reply, mentioned that when in Hobart a few days previously they had seen several of the leading members of the profession and urged them to re-form the Tasmanian sub-branch, at present in abeyance. He detailed the difficulties which were met with there. With regard to the relations existing between the present Council of the Melbourne Branch and the 1900 Council, he wished to postpone expressing his opinions until he had heard those of other members of the Council.

The President announced that all would be given an opportunity of expressing their views in speaking to the next toast, which he called upon the ex-President, Dr. Weigall, to propose.

Dr. R. E. Weigall proposed the toast of "The British Medical Association," of which, he said, the watchword was the unification of the medical profession throughout the British Empire. They were unfortunate in Victoria in that in that State this ideal was at present so far from being realised. He went on to give a *resumé* of the circumstances which had led to the resignation and secession of the 1900 Council from active participation in the work of the Association. He, in common with all the members of the present Council, very much regretted the failure of the attempt at a reconciliation made towards the end of last year. It was a matter of great regret, not only for themselves, but for the profession at large that the old Council had seen fit to impose a condition which a general meeting of the Branch had not seen fit to entertain. He thought that the offer of the present Council to resign in a body showed that loyalty to the Association was foremost in their minds. He referred with pleasure to the proposal of the Sydney Council that future congresses should be in the hands of the British Medical Association, rather than in the hands of a non-permanent organisation as at present. He trusted that the Adelaide Congress would see fit to carry out that suggestion.

Drs Joske, Vance, Willis, and Laurie also spoke to the toast.

Dr. Cuscaden (vice-president), in reply, sincerely hoped that this discussion would bring forth fruit, in the shape of some action by the Sydney Council towards formulating some workable basis of reconciliation. The present Council undoubtedly had the good of the Association and of the profession and the unification of the profession at heart, and this latter aim was indissolubly bound up in the restoration of the old prestige of the British Medical Association in Victoria.

The President, before asking the guests to speak again, referred to the measures which were being considered by the Council directed towards enhancing the position of the Association in Melbourne and rendering their monthly meetings more valuable and attractive. It was proposed to inaugurate a series of lectures and demonstrations by specialists, and invite the general body of the profession.

Dr. Crago thanked the members for the clear way in which they had put the position of affairs before them. He appreciated the action of the present Council in offering to resign in order to allow the 1900 Council to resume their old positions. Dr. Rennie and he had considered the matter in all its bearings, and would be pleased to report what they had learnt to the New South Wales Council. On behalf of Dr. Rennie and himself he offered one or two suggestions which he trusted the present Council would seriously consider.

Afterwards an informal discussion took place in which there were several expressions of the appreciation of members of the Council of the zeal shown by Drs. Crago and Rennie in giving up so much time of what was nominally a holiday trip. They were assured that their suggestions would receive the best and most earnest consideration of the Council.

REPORTS OF OTHER SOCIETIES.

The Medical Defence Association of Victoria, Limited.

An extraordinary general meeting of the above Association was held in the Medical Society's Hall, Melbourne, on the evening of March 2nd, 1905,—the President, Mr. G. A. Syme, in the chair—to consider the following resolutions, notice of which had been given at the annual meeting:—

1. No medical practitioner who, in the opinion of the Council, has acted as cover for an unqualified person shall be eligible to be elected, or, if elected, to remain as a member of the Association.
2. Any member who, after notice from the Council, meets in consultation any medical practitioner ineligible for election as a member of the Association, or who has been refused election, or who has been expelled or otherwise removed from the Association, shall be ineligible to remain as a member of the Association.
3. The Council may expend moneys of the Association in the procuring of proof against and in the prosecution of persons infringing the Medical Act, 1890, Part I, or any Act repealing or modifying the same.
4. No medical practitioner who is or has been a medical officer of a medical institute, or of any society deemed by the Council a medical institute, which, in the opinion of the Council, is or has been inimical to the interests of the profession, whether the same be or have been in Victoria or not, shall be eligible to be elected, or, if elected, to remain a member of the Association after notice received by him from the Council.

Dr. Joske moved the first resolution, pointing out that he did not wish it in any way to interfere with the present employment of masseurs and other assistants of that kind.

Dr. Andrew seconded, and expressed himself in favour of the principle involved.

Dr. Officer considered that the Council already had sufficient power.

Dr. Black trusted that this was not to be retrospective. He and many others must plead guilty to having had an unqualified *locum tenens* 20 years or so ago, when qualified men were not so plentiful.

The President did not see the slightest necessity for the rule, as the Council possessed ample powers at present, and the resolution still left it to the discretion of the Council. He did not see that any ground would be gained. Special rules were a mistake, and instead of strengthening the hands of the Council, only weakened them in dealing with other breaches of professional ethics not specially mentioned in the rules.

Dr. McAdam agreed with the President.

The Secretary read rule 46.

Dr. Joske said that he was satisfied, and with the consent of the seconder withdrew the resolution.

In the absence of Dr. Hughes the second resolution was postponed.

In the absence of Dr. Mullen, in whose name the third resolution stood, the President moved it *pro forma*, and in doing so read a letter from Dr. J. W. Barrett opposing it on the grounds that it looked too much like an attempt at trades unionism in the profession, and that the Medical Act being framed to protect the public and not the medical profession, it was for the Government to take action against quacks and pretenders.

Mr. Syme mentioned that this motion arose out of several requests that had been made to the Council to prosecute certain firms carrying on a medical practice. As one of the founders of the Association, he said that its main object was to accumulate funds for the legal defence of members for alleged malpractice. The powers of the Council were already very large, but it was not an offensive association. The prosecution of quacks was a mistake, only giving them notoriety. There would always be quacks, and people to be quacked.

Dr. Joske seconded, *pro forma,* and hoped it would not be carried.

Dr. Andrew spoke against.

Dr. Stewart moved as an amendment that action be postponed for 12 months.

The amendment was not seconded.

The motion was lost on the voices.

Dr. Black, in moving the fourth resolution, said that he did not recognise his child in its present shape after passing through the hands of the legal adviser to the Association. As it stood, it was retrospective, which was far from his intention. All he desired was that no man, after being warned, should carry on an institute practice, and then, when established in a place, resign it and later be whitewashed and admitted to the Association.

The resolution was seconded *pro forma.*

The President considered it unnecessary, and said that what he had said in speaking to the first resolution equally applied to this.

Drs. McAdam, Stewart, Andrew, Mailer, and Officer also spoke.

The resolution was carried after being amended to apply only to medical practitioners who after a certain date shall accept or hold what, in the opinion of the Council, is an institute appointment, after notice received from the Council.

OBITUARY.

James Brown Crabbe, M.B., C.M. (Edin.), 1874, Chatswood, N.S.W.

We regret to record the death of Dr. J. B. Crabbe, which took place at his residence, Chatswood, on March 4th, in his 56th year, after several months' suffering from cancer of the descending colon. He was a native of Kirriemuir, Scotland, where he was born in 1850. After graduating at Edinburgh University, he came to Australia in 1875, and settled in the Clarence River district, and soon acquired an extensive practice. In 1889 he removed to Chatswood, where he practised his profession up till a few months before his death. He took an active interest in the public life of the community around him. He was an ex-president of the local bowling club, and for some years he was an alderman of the Willoughby Council. Personally he was of a genial temperament and of a kindly, charitable nature. He leaves a widow and a family of three daughters. The funeral took place in the Presbyterian section of the Gore Hill Cemetery, and was largely attended by the officers and members of the Chatswood Bowling Club, and others.

Erasmus Wren, L.R.C.P., F.R.C.S. (Eng.), Wagga Wagga.

The death occurred at Wagga, N.S.W., on March 6th, of Dr. Erasmus Wren, aged 89. The deceased was born in England in 1815, and thus lived in the reigns of five sovereigns—George III, George IV, William IV, Victoria, and Edward VII. Dr. Wren qualified at London in 1837, and came to Tasmania under engagement to the Imperial Government. Thence he went to Deniliquin, where he was in partnership with the late Dr. Noyes. Dr. Wren went to Wagga in 1874, where he practised his profession until failing health recently compelled him to relinquish it. The deceased for many years was Government medical officer in the Wagga district, and was also president of the Riverina Club.

Medico-Ethical and Medico-Legal.

An Abortionist Sentenced.—According to a report in the *Brisbane Courier* of February 23rd, at the criminal sittings of the Supreme Court, a medical man named Armitage Forbes was charged with procuring abortion on a woman named McKenzie. After evidence for the prosecution had been given, counsel for the accused did not call any evidence, but addressed the jury at some length. His Honor Judge Real then summed up. He told the jury that the offence prisoner was charged with was that of using force to procure a miscarriage, and stated that the Act expressly set forth that it did not matter whether the woman was pregnant or not. He contended that no defence whatever had been set up; there was no dispute as to the writing of the prisoner, and the only question was whether the operation was performed for an illegal purpose or not. His Honor then reviewed the evidence, and said that it was almost like an insult to the intelligence of the jury for him to sum up, for the defence never attempted to show that the operation performed was necessary. He directed the jury that Mrs. McKenzie was an accomplice. The jury found the prisoner guilty, but recommended him to mercy on account of his age. The prisoner, in answer to his Honor, said he had nothing to say. In answer to the Judge, the police said that the prisoner had practised as a doctor in New South Wales till a few years ago, when he came to Queensland. He had had nothing against him till the Mary Hope case, out of which this case practically arose. His books, however, placed him open to suspicion of malpractices for the past 12 months. His Honor, addressing the prisoner, said his case was a sad one. He did not see, however, how the jury could have come to any other conclusion. Had they done so he would have felt shame as a Queenslander that they should permit such practices to go unpunished. In consequence of prisoner's good record in an honourable profession, he would be lenient, but he could not give him a light sentence. He then sentenced him to five years' imprisonment with hard labour.

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

Some Conditions Regarding Wounds of the Liver.

Tilton, of New York (*Annals of Surgery*, January, 1905), contributes a paper on the above. Much attention of late years has been devoted to the general consideration of open and subcutaneous injuries of the abdominal viscera. The author considers the injuries of one particular organ—the liver—and discusses their special signs, prognosis, and indications for treatment. The liver is injured with greater frequency than any other solid abdominal viscus. In 365 cases of subcutaneous injuries of solid viscera, the liver was the seat of injury in 189, and the spleen, kidney, and pancreas combined in 176. There are several factors which make it particularly susceptible to injury. It lies wedged in between the ribs and vertebral column, is very heavy, very inelastic, and only slightly movable. It is nine times as heavy as the spleen and ten times as heavy as the kidney. Alcoholism, tuberculosis, malarial conditions and tumour formation render it more friable and exposed to injury. The right lobe is injured about six times as frequently as the left, and the convex surface about twice as often as the concave. Wounds of the liver are frequently associated with injuries of other organs, as lung, spleen, kidney, gastro-intestinal tract, and bile ducts. Injuries of distant parts, such as fractures of the skull, spine, etc., often accompany rupture of the liver. Gunshot wounds and stab wounds are found associated many times with perforation of the diaphragm, lung, stomach, or intestines and kidney. The presence of these complicating injuries increases very materially the gravity of the prognosis, and renders our operative interference much less hopeful. Illustrative cases are quoted. As regards symptoms, there are numerous factors of more or less diagnostic aid. There may be signs of local injury of the overlying parts. Ecchymosis of the skin or fracture of ribs may turn attention towards the liver as the injured organ. In gunshot wounds there will be a wound of entrance usually over the liver, and if there is a wound of exit, the direction taken by the bullet may determine whether the liver has been perforated. Escape of venous blood, with or without admixture of bile, is an important positive sign. Localised pain, radiating to the right shoulder, and intensified by pressure and by respiration, is suggestive of injury to the liver. Symptoms of hæmorrhage, both local and general, are usually present. The blood gravitates into the right iliac fossa, and may give rise to dulness. Disappearance of liver dulness, due to beginning tympanites, may come on in a few hours. Jaundice is occasionally present; appears from the second to the fourth day. Rigidity of abdominal muscles is a never-failing symptom. The prognosis depends largely upon the associated injuries and the complications. The severest cases die within 24 hours, from shock or hæmorrhage. Of 162 fatal cases collected by Edler, hæmorrhage was the direct cause of death in 69. Many mild cases of laceration of the liver go on to recovery without complications and with very few symptoms. *Treatment:* As far as the treatment of injuries of the liver is concerned, the modern tendency is towards early laparotomy, as in suspected injuries of any of the abominal viscera. Open wounds should, without exception, be treated by enlargement of the wound, exposure of the liver, and determination of the site and extent of the injury to the organ. The best methods of stopping hæmorrhage are by the use of sutures or gauze packing. If the former are used they should include considerable liver tissue at the edges of the wound, and, if possible, go down to its full depth. The following conclusions seem justifiable:—The prognosis of the severer cases of wounds of the liver has improved of late years, especially under early operative treatment. The treatment of all open injuries should be early laparotomy for the purpose of hæmostasis, thorough examination and prevention of infection. As regards subcutaneous ruptures, the mild cases should be treated expectantly. Cases in which there are marked collapse or signs (local or general) of internal hæmorrhage should be treated by early laparotomy, with suture or packing of the wounded liver. The mortality of wounds of the liver alone will, in all probability, diminish from year to year with the more general adoption of early laparotomy.

The Management of Hernia in Infancy and Childhood, with Results of Operative Treatment.

Coley (*The Journal of the American Medical Association*, January 14th, 1905) deals with the above in an interesting manner. The fact that at least one-third of all the cases of hernia occur in children under the age of 14 is sufficient evidence of the importance of this subject. By congenital hernia is not meant a hernia that existed at birth, but a hernia due to the failure on the part of Nature to close the process of peritoneum that has followed the testis in its descent into the scrotum. The main question under consideration in the present paper is how to treat a hernia after it has developed, and the first point to decide is: Shall the treatment be mechanical or operative? The author thinks the truss should always be the method of choice in children under the age of four years, although not a few surgeons are now advocating operation as the primary method of treatment in infants. While the author believes it a good general rule not to operate until the age of four years has been reached, there are certain important exceptions:—(1) If there is a history of strangulation that has become reduced by taxis, operation is indicated, no matter how young the child. (2) In cases in which, despite carefully directed truss treatment, the hernia has become irreducible, or reducible with difficulty, early operation should be advised. (3) In cases in which the rupture cannot be controlled by a truss and, as a consequence, is gradually increasing in size. (4) In all cases of femoral hernia, the reason for prompt operation in this class being that a cure by persistent truss treatment is practically unknown at any age. (5) Immediate operation is indicated in all cases of hernia associated with reducible hydrocele or fluid in the hernial sac, inasmuch as it is impossible to control the rupture by means of a truss, and there is, hence, nothing to be gained by waiting. *Results of mechanical treatment:* Roughly speaking, Coley believes that hernia in infants and children under the age of four years can be cured by carefully-directed truss treatment in about two-thirds of the cases, although it is probable that in after years a considerable percentage will relapse. Beyond the age of four years, in a fair proportion of the cases, a cure can be effected by means of a truss, provided the truss is properly fitted in the first place and the child is seen regularly by a surgeon for a period of not less than two years. *Duration of treatment:* If a child has reached the age of four years and the rupture has not been cured, as shown by its occasional appearance when the truss is removed, then an operation should be performed. *Methods of operation:* The author does not agree with a somewhat prevalent opinion that almost any operation will accomplish the desired result, but as the result of a very large experience prefers the Bassini operation—with the addition of one suture above the cord—and the use of chromicised kangaroo tendon for sutures instead of silk, or silver wire. Dry sterile gauze dressings are used, kept in place by a firmly-applied spica bandage, and finally a plaster of paris spica is applied to give the parts rest. The wound is dressed the seventh day, and the patients are kept in bed two weeks, and allowed to go out in two and a-half or three weeks, wearing a spica until four weeks have elapsed from the date of the operation. Consideration is given to various complications. *Results as regards primary wound healing:* Prior to 1897, primary wound healing was observed in 96 per cent. of the cases ; since the introduction of rubber gloves it was noted in 99 per cent., which proves that it is possible to obtain a sterile absorbable suture. Furthermore, the fact that the final results in 775 Bassini operations in children showed but *three* relapses proves that the tendon sutures remain unabsorbed sufficiently long to effect a permanent cure. *Final results of operative treatment:* Between August, 1891, and July, 1904, the author has performed 825 operations for the radical cure of hernia in children under the age of 14 years, with one death due to ether pneumonia. Four were for umbilical hernia, four for ventral, two for epigastric, 25 for femoral, and 790 for inguinal. In 15 of the inguinal cases the cord was not transplanted, leaving 775 in which Bassini's operation (with the modifications before mentioned) was performed. In the 775 but three relapses were observed, while in the 15 no less than five relapses were noted. In a total of 1330 operations for the radical cure of inguinal and femoral hernia, including adults, only two deaths occurred and 12 relapses. In the 25 cases of femoral hernia in children there has not been a single relapse. The method of operation for femoral hernia in children has been in every case the "purse-string suture" with kangaroo tendon.

The Humane Treatment of Malignant Disease from a Surgical Point of View.

J. C. Munro (*The Boston Medical and Surgical Journal*, January 19th, 1905) opened a discussion on the above at the Boston Medical Library. The author applied to Drs. Gay and Lund for illustrative cases, thinking it would be difficult to secure a sufficient number to make an argument. The cases they furnished, together with those from the clinic of Carney Hospital, gave more than he required. He asked his hearers to remember that he was pleading on the defendant's side. The other side had been so vigorously, and, he thought, inhumanely, forced upon them within recent years, that he limited his argument to the plea for more frequent interference in incurable malignant disease. He found as he grew older that he was more willing to operate where there was the smallest outlook for relief. He doubted if any surgeon dreaded these cases more than he did. He had had too many sad and disappointing experiences. Occasionally, however, in the midst of this malignant Sahara there came most unexpectedly an oasis in the shape of a permanent cure or a long period of relief from suffering, followed by a painless, comfortable final illness, that he was forced to discipline himself with the query whether, after all, one such happy outcome was not worth dozens of discouraging ones. In dealing with cancer they must consider the immediate operative results as shown in relief from physical and mental suffering, as well as the remote results as shown in permanent cure. Neither surgery nor any other form of treatment is yet able to assure permanent relief in more than a small percentage of cases. Must surgeons simply berate their medical *confrère* because he has asked for surgical relief long after it is too late, instead of carrying on their surgical work to the best of their ability ? The tenacity with which the average middle-aged patient clings to life when he realises that he is the victim of an incurable malady is something frightful. When the facts are honestly and frankly presented to such patients they are not only willing but anxious to obtain temporary respite. The question of our ability to make an absolute diagnosis is a most serious one. (Some illustrative cases are quoted.) What the surgeon does learn is, that unless he can absolutely and definitely make a diagnosis of inoperable malignancy, especially when dealing with the abdominal cavity, it is safer to explore for absolute confirmation. What is the danger of an exploration in the abdominal cavity ? In experienced hands it is as near *nil* as anything in surgery can be. A small proportion of cases of cancer are fulminant from the outset. Surgery is of little or no avail in this type. The importance of the family physician recognising that cancer of the stomach and intestine should be handed over to the surgeon at the earliest opportunity is touched upon. The author quotes Dr. Gay as follows:—"Not unfrequently an operation is demanded by the patient. He is determined to have something done. The outcome which is in the future does not disturb him. The present concerns him, and he will not sit down and allow the disease to pursue its normal course without making an effort to stop it. If the reputable surgeon will not treat him, is it any wonder that he seeks the services of an unscrupulous advertiser, as so many do under these circumstances ? In the majority of these cases we are seeking relief, not a cure. As surgical measures give more relief in many cases than anything else, I believe it is our duty to offer it to them in accordance with our best judgment, even if it does not cure or always bring the relief which we were led to expect under the conditions. Euthanasia, extending over weeks or months, is worth fighting for by all the means at our command, and in many instances surgery will do what nothing else will in that direction." The physician rarely hesitates to refer his patients with a malignant external tumour to the surgeon at once. Is not an early cancer of the gall-bladder, pylorus, sigmoid or ovary less formidable than a cancer of the nose, the lid, the penis, the tongue, or the neck ? The author personally feels that the Coley serum is still too uncertain for employment except in cases beyond surgery, and that the X-ray is already doing more harm than good, except in very limited types. In conclusion he begs of his medical friends to yield to the fact that cancer, wherever situated, is a surgical disease, especially in its early stages ; that the outlook for success depends upon the early resort to surgery, where operation is available ; and that the surgeon should be the judge as to the possibilities of surgical treatment. To the surgeon he appeals for a little more optimism in dealing with the apparently hopeless cases.

EAR, NOSE, AND THROAT.

Cancer of the Larynx.

Felix Lemon (*Lancet*, Nov. 5, 1904), in a long and valuable address delivered before the New York

Academy of Medicine, arrives at the following conclusions:—1. It is of the greatest importance that the diagnosis should be made at the earliest possible moment. For this purpose it is most essential that the still prevailing notion—viz., that malignant disease of the larynx is from the first attended by all sorts of grave constitutional symptoms—be completely eradicated, and that attention should be drawn again and again to the fact that there are no more promising cases for radical operation than those in which the disease is at first manifested by nothing else than by obstinate hoarseness occurring, without any apparent cause, in middle-aged and elderly persons. 2. Clinical diagnosis arrived at from history and subjective symptoms and laryngscopic examination has reached a certain degree of perfection, and enables us usually to make a correct diagnosis at an early stage of the disease, though mistakes occur even in the practice of those most experienced. 3. In these circumstances, clinical diagnosis ought, whenever possible, to be confirmed before radical operation of any kind is undertaken by the intra-laryngeal removal and examination of a fragment or fragments of the new growth. This, however, should only be done, if the patient previously consents to immediate radical operation being undertaken, in view of the microscope confirming the clinical diagnosis. The microscope, however, is by no means infallible in these cases. Should its evidence be negative or inconclusive, the intra-laryngeal removal and examination of fragments should be repeated, if necessary, several times; or if the clinical symptoms do not warrant postponement, exploratory thyrotomy should be undertaken. 4. The intra-laryngeal method is from its very nature unsuitable for the radical removal of malignant new growths. 5. Sub-hyoid pharyngotomy, apart from being applicable in a very small number of cases only of malignant disease, is still *sub judice* with regard to its advisability in such cases. 6. Thyrotomy, if undertaken in suitable cases and at a sufficiently early period, and if performed on the modern lines which experience has shown to be successful, is a perfectly ideal operation in intrinsic cancer of the larynx. 7. Hemi-laryngectomy comes into question only when it is found, after opening the larynx, that mere thyrotomy will not suffice. When performed, it may be accompanied by removal of the tributary lymphatics even if apparently not diseased. 8. Total laryngectomy should be exclusively reserved for extrinsic and for those cases of intrinsic cancer in which both sides of the organ are affected, and in which the disease has proceeded too far to be eradicated by milder measures. It should be accompanied by the removal of the laryngeal lymphatics on both sides of the neck.

The Radical Mastoid Operation.

Charles Heath (*Lancet*, Dec. 24, 1904) describes his modification of the radical mastoid operation for suppurative ear disease. He claims for it the following advantages:—1. Little shock to the patient, as the operation can be performed in half an hour. 2. There is no disfiguring scar. 3. There is no shaving of the head. 4. The after treatment is easy for both patient and surgeon. 5. A considerable amount of hearing is restored and preserved in the vast majority of patients. He begins his incision at the top of the ear, just above the upper attachment of the pinna, and in the angle where the cartilage joins the scalp, and continues it round to the back of the ear in the angle all the way until it reaches as far down as the bottom of the bony meatus. This incision is deepened until the temporal fascia and pericranium are reached and the cartilaginous meatus defined; thereupon a crescentic incision commencing on the supra-meatal ridge of the zygoma is carried round the exposed cartilaginous meatus and should reach the bone, and the margin of the bony meatus and post-meatal spine are exposed. The cartilaginous meatus and the skin extending all the way to the drum membrane are separated and pushed forward. The tympanum and through it the aditus and antrum are now explored by a set of probes made specially for the purpose. A portion of the posterior wall just below the spine is then removed with mallet and gouge. When the antrum is opened, he enlarges the opening and smooths out all irregularities of the cavity with a long burr. For removing the bridge over the iter he uses the mallet and gouge, cracking cautiously and not actually cutting through the upper and lower supports, and lifting the loosened bridge out with a strong bent probe. His meatal flap differs from others described. He divides the meatus along the top, but rather nearer the anterior than the posterior wall. An incision at right angles to this incision is now made backwards and downwards as far as the middle of the floor of the cartilaginous meatus, passing close to the concha all the way. Thus a large flap is formed consisting of rather more than the posterior half of the meatus, and is used to cover the floor and part of the posterior wall of the newly enlarged meatus, being held in position by a stitch to the pericranium. The orifice of the cartilaginous meatus is enlarged until it will admit the little finger. The cavity is swabbed out with some powerful antiseptic, and a drainage tube as large as will go in, and extending to the antrum, is inserted. On the next day the dressings are removed, and the cavity mopped out through the tube with an antiseptic. No syringing is used or packing with gauze. Heath is of opinion that tight plugging over the windows in the tympanum or scars involving these openings is responsible for the loss of hearing after complete mastoid operations. If granulations are too abundant, they are rubbed down with a 50 % solution of arg. nit. Heath also recommends that spirit drops should be used from the second or third day.

Lithæmic Naso-Pharyngitis due to Systematic Disturbance.

Stucky (*Jour. Amer. Med. Assoc.*, Oct., 1904) deals with a class of cases where commonly no fault can be found locally to explain the symptoms. These cases are closely related to rheumatism, and the theory is advanced that excess of indican often found in the urine is the most potent excitant of the naso-pharyngeal irritation. Incorrect habits of diet lie at the base of the difficulty. More or less constipation exists, little water is drunk, meat and sweets are freely used, as well as salads, coffee, tea and acids. The skin is florid or muddy. Stopping of the auto-intoxication from imperfect intestinal action will often cure these cases. The treatment consists of high colon flushing with soapsuds, followed by an injection of eight ounces of warm olive oil a few hours later. The patient is ordered to rest in bed until the oil has acted, which usually takes ten hours. The diet is regulated (acid fruits are forbidden); exercise in the open air and free use of drinking water between meals are encouraged.

THERAPEUTICS.

Antifebrin.

Clarke (*Boston Medical and Surgical Journal*, November, 1904) reviews the various uses of antifebrin, both as an internal and external medicament. As an internal remedy he says that antifebrin is fourfold in its action. Firstly, as an anodyne it is capable of relieving pain; combined with carbonate of soda it relieves the pains of migraine, although it fails in some cases. In affections of the stomach, such as gastralgia, and in acute attacks of indigestion, it sometimes gives wonderful relief. Secondly, it acts as an antipyretic, and thirdly as a sudorific. In these two ways it gives relief in incipient coryzas and in certain bronchial affections, and in pharyngitis. In influenza the author recommends its administration in doses of 5 to 10 grains every two or three hours until free perspiration is established. He wisely adds that this dosage should not be continued beyond a fourth time, and if no perspiration occur after the fourth dose the remedy should be discontinued. Fourthly, it has soothing and soporific properties. In the first stage of a "cold" its employment produces a well-pronounced quietness, a feeling of ease and comfort supervenes, and many of the bad symptoms disappear. As an outward application, it acts both aseptically and antiseptically. It may also subserve the purpose of an anodyne, but it does not possess this property in the same degree as resorcin. Its use is indicated in all discharging surfaces, open wounds, ulcers, granulations, and especially in operations in minor surgery, and may be advantageously used in every case requiring a dry dressing. Suppurating and ulcerated surfaces are first washed with peroxide of hydrogen, then the part is sprinkled with powdered antifebrin, covered with a strip of absorbent cotton or of ordinary lint, that has been previously smeared with vaseline, and the whole bandaged if necessary. If the surface to be treated be large, precaution must be taken not to make too lavish a use of the drug. In the treatment of open wounds and of minor operations the injured part is first cleansed and carbolised and antifebrin dusted over the whole; a bandage may then be loosely applied. Extensive lacerations by machinery of thumbs and fingers, even when the bones are split and necessarily require whole or partial removal, under this method have healed admirably without the formation of any pus. In the treatment of varicose ulcers of the leg, the use of antifebrin in the author's hands has surpassed every other application adopted in his former hospital practice. He records the case of an old lady 84 years of age, with varicose veins and a chronic, irritable, indolent ulcer of several months' standing. The ulcer was first thoroughly cleansed with a 4 per cent. solution of peroxide of hydrogen, next antifebrin was dusted over the sore, a strip of absorbent cotton smeared with vaseline applied, and the leg lightly bandaged. As much rest as could be obtained was enjoined. After two or three such treatments the pain and tenderness of the ulcer disappeared, a healthy action was established, and in four weeks the ulcer was practically healed. After a period of three years the ulcer had not returned. In another case of an ulcer of the same kind of two years' standing the same treatment was adopted with equally satisfactory results.

Urotropine as a Prophylactic in Scarlet Fever Nephritis.

Patschkowski (*Therapist*, January 14th, 1905) remarks that nephritis is more feared than any other complication of scarlet fever, and therefore urges that every effort should be made to prevent its onset by proper prophylaxis. Widowitz published the first attempt in this direction in the *Wiener Klinische Wochenschrift*, No. 40, 1903. He administered urotropine prophylactically against nephritis in 102 cases of scarlet fever, and in none of these did nephritis develop. On account of this success, urotropine has been administered in the cases of scarlet fever occurring in the Municipal Hospital of Charlottenburg by the author, with the following excellent results:—The drug was administered in 52 cases. All of these were of an extremely malignant type, resulting from an epidemic. Of these cases, 8 received urotropine for from 10 to 21 days continuously; children 5 grs., and adults 7½ grs., three times daily. In one of these, mild albuminuria occurred for four or five days, but there were no casts in the urine. In the other 44 cases the patients received the dosage three times daily for four days, with certain interruptions. In most of the cases the patients arrived before the third day of the attack. Of these 44 cases, two developed nephritis, one on the twelfth to twenty-third day, and one from the twenty-second day. The latter patient, even on the fortieth day, showed a mild albuminuria. Of these 52 patients, therefore, only two, or 3·8 per cent., had nephritis. No injurious effect of the urotropine could be observed in any of the cases, not even when administered for 21 days in succession. In order to further demonstrate the effect of urotropine as a prophylactic in scarlet fever nephritis, the author refers to some data which illustrate the frequency of the occurrence of nephritis in other scarlet fever epidemics. Heubner states that of 358 patients treated in private practice, he saw 10 cases of nephritis, but he considers that a greater number of mild attacks occur in private practice than in hospital, and also that in most cases in private practice the patients are better able to resist the attacks on account of better nourishment. Against this may be placed the fact that during four years' practice at the Charité Hospital, Berlin, 19·6 per cent. of 393 cases were complicated with nephritis. In the Charlottenburg Municipal Hospital during the two years previous to the use of urotropine, 225 cases of scarlet fever were under treatment. Deducting those cases which died shortly after admission and those which entered the hospital with nephritis, there remain 177 cases, and 37, or 20·9 per cent., of these developed nephritis, as compared with 3.8 per cent. after the introduction of urotropine prophylaxis. This success has induced the author to administer urotropine in all cases of scarlet fever which come under treatment in the hospital. He also suggests that it would be wise to administer urotropine prophylactically in cases of sepsis—for instance, puerperal sepsis—against attacks of nephritis.

ORAL SEPSIS.—"EUMENTHOL JUJUBES" (HUDSON)
MADE IN AUSTRALIA.
A Gum pastille containing the active constituents of well-known Antiseptics, Eucalyptus Globulus, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic, prophylactic, reducing sensibility of mucous membrane. W. A. DIXON, F.I.C., F.C.S., Public Analyst of Sydney, after a comparative test of "Eumenthol Jujubes" and beech-wood Creasote, reports that there is little difference in their bactericidal action. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creasote." G. HUDSON, Manufacturing Chemist, Ipswich, Queensland. London Agent: W. F. PASMORE, Chemist, 320 Regent-street, W. —[ADVT.]

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

King Edward's Hospital Fund — Hebrew Wards at the London Hospital—Birthday Honours—New Physical Laboratory at Liverpool—English Hospital in Berlin—London Hospitals and Medical Schools—The Cure of Inebriate Women—The Sleeping Sickness.

THE report of the General Council of King Edward's Hospital Fund for London for the year ending December 31st, 1903, has been issued. It gives detailed information as to the administration of the Fund, and is supplemented with reports by the Hospitals Distribution Committee and by the Convalescent Homes Committee. During the year, in addition to interest from investments, the donations amounted to £6882 13s 9d and the annual subscriptions to £32,834 1s 3d, while from the League of Mercy came £10,000, and from the Shopping Day Committee £1200. Compared with 1902, the year now under notice shows a decrease; but 1902 was an exceptional year, his Majesty's coronation and the popular rejoicings attending it exciting the charitable sympathy of all classes, and producing great results in the shape of donations and capital contributions to the Fund which bears the sovereign's name. With the Coronation gift added, the Council in that year were in a position to recommend the distribution of £101,000 among the London hospitals and convalescent homes. The close of 1903 showed a decrease of donations, which, however, was in some degree counterbalanced by additional subscriptions to the amount of £4000, while the League of Mercy contributed £2000 more than in the previous year, making in the five years of its existence £32,000 which the League has given to the Fund. In pursuance of a previous decision the special committee appointed for the purpose issued a general appeal to shopkeepers of the metropolis to set apart Tuesday, November 3rd, as a Hospital Shopping Day, and to give a percentage of their takings on that day to the Fund for the benefit of the hospitals. Though the scheme at the outset was attended with considerable promise, opposition of an "important character" led the Council not to recommend the continuance of the shopping day in the present year.

The four new wards at the London Hospital were opened on November 14th by Mr. Leopold Rothschild, in the presence of a large gathering of people interested in hospital and charity work. The wards, which will be used exclusively by Jewish patients, are the result of the generosity of the late Mr. E. L. Raphael. They have been erected at a cost of £20,000, this sum having been originally set aside by Mr. Raphael as a memorial to his wife Helene, after whom the female surgical ward has been named. Mr. L. E. Raphael, a son, has provided for the tiling of the wards at a further cost of £600. The four wards are situated at the top of the west wing of the hospital, and provide accommodation for 27 men and 27 women. Each ward is 72 feet long, 21 feet wide, and 17 feet high. A kitchen is attached, in which the food of the patients will be prepared by Jewish cooks. Around the wards is a balcony, on to which in fine weather the patients can be wheeled in their beds. Last year the number of Jewish in-patients treated at the hospital was 1541, and there were then only 27 beds. The Hon. Leopold Rothschild, in declaring the wards open, said he was there as representing his brother, Lord Rothschild, who had for the past two weeks been suffering from an attack of sciatica, and who regretted that he had to forego that opportunity of thanking the London Hospital for the great benefits it had conferred upon the Jewish community within the last 50 years. As lay head, so to speak, of that community, Lord Rothschild would have liked to have publicly expressed what they all felt. The Chief Rabbi also was kept away through illness. There was one thing about the hospital which appealed to all people, and that was that within its walls suffering knew no sect or denomination. He could not impress upon the Jews too much to what extent they ought to respect this hospital. They ought to look upon it as a model institution, and, according to their wealth, they ought to support it. They had a noble example in the presentation of £20,000 for those new wards by the late Mr. E. L. Raphael. In conclusion he thanked the managers, the matron, and the staff for their efforts on behalf of their poor Jewish brethren.

The list of honours conferred by his Majesty the King on the sixty-third anniversary of his birthday contains the names of four members of the medical profession, whom he has created Knights. Mr. Shirley F. Murphy is medical officer of health to the administrative County of London, and a past president of the Epidemiological Society and of the Society of Medical Officers of Health; Dr. Charles H. Marriott is a consulting surgeon to the Leicester Infirmary, and the founder of the nursing institute connected with that charity; Dr. William Japp Sinclair is Professor of Obstetrics and Gynæcology in the University of Manchester; Major Allan Perry is the principal medical officer and inspector-general of hospitals of the Island of Ceylon; he is also Principal of the Ceylon Medical College.

An important epoch in the history of the Liverpool University was marked by the inauguration on November 12th of some new medical buildings and the George Holt Physics Laboratory. The new medical school is in the Gothic style, and is admirably equipped, as also is the physics laboratory, which covers an area of 9600 square feet, and has been erected at a cost of £21,600, a sum of £25,900 having been subscribed locally for the purpose. The Earl of Derby, who, in his capacity as Chancellor of the University, presided at the opening ceremony in St. George's Hall, said that the University owed its existence to the energy and munificence of the citizens of Liverpool. The chemical laboratory, the Thomson-Yates Laboratory, the School of Comparative Pathology and its annexe, and the new Physics Laboratory had all been provided since 1898, and donors had defrayed the cost of between £90,000 and £100,000. In the meantime, chairs had been established for biological chemistry and tropical medicine, and lectureships had been instituted in all kinds of medical subjects which had no existence at all six or seven years ago. Further additions to the University were at present in the course of construction, and in time they hoped to have further supplementary institutions. Probably no city in the kingdom—certainly no University—could claim such alliance as Liverpool did with the wants of medical and scientific knowledge beyond the seas. Lord Kelvin, to whom a flattering reception was accorded, said that a physics laboratory was a place of delight for every scientific man, boy and girl. In the physics laboratory, which he was to formally open that afternoon, he found realised not only the general results of 50 years of physical laboratories in our own country, in France, in Germany, and in other countries of Europe, in Australia, and Cape Colony, the United States of America and in Canada, but he also found very special marks of the large experience, the hospitals in Sydney, I may be permitted, as an honorary member of the medical staff of one of these institutions, to ask, even at the eleventh hour, is there no means of effectually dealing with this abuse? I believe that, at the lowest average, 20 per cent. of indoor patients treated in our public hospitals from year's end to year's end get in on false representation, and could well afford to pay medical fees—in many instances substantial fees. What this means in financial loss to medical practitioners may be judged proximately by the large aggregate of yearly admissions. I can pretty well calculate to what extent it touches my own pocket.

During my 20 years' experience as an honorary, I can call to mind many instances, discovered too late for prevention or redress, of deception of this nature practised on the hospital, and medical attendance thereof. In one instance, and only one, I was fortunately able to take a firm attitude after the event, with successful result. It was this. A woman was sent to me from a certain town in Queensland for operation—a case of multi-locular ovarian cyst. The patient's medical attendant posted me a letter suggesting I should charge a certain fee, which he had named to her. She, however, did not come to my study, but went direct to the hospital, and when I got there I found her, to my astonishment, in the public ward (there is accommodation for private patients in the institution, in rooms distinct from and in no way connected with the public wards). She stated to me she was unable to pay for private attendance. I told her what her doctor had written to me. She assured me he was mistaken, and declared emphatically that she was a poor woman and absolutely unable to pay any fee whatever. Well, I accepted, in good faith, her statement, operated successfully (it was an exceptionally difficult case of its kind), and she left the hospital cured within three weeks, hardly even expressing gratitude, taking it all as a matter of course. Meanwhile I had written to her doctor, from whom I received a reply somewhat in the following terms: "Oh! you were foolish. Did I not tell you they were able to pay, and that she agreed to a fee?" etc. From another source I learned that her husband had thousands of acres. My course was clear. I wrote to the woman saying I had discovered that she had practised deliberate deception on the hospital and on me; that she had taken advantage of the distance, and had falsely represented her position; that the public wards of the hospital were for the reception of the poorer classes, and not for such as she; and that if the fee named by her medical attendant and agreed to by her were not forwarded immediately, I would not only put the matter in my solicitor's hands but would also expose this glaring imposition in the public press. Result: I got my fee by return post! This is but one out of, no doubt, numerous cases, mostly not discovered until too late for redress, cropping up constantly in all our public hospitals. A few days ago I was told authoritatively of a patient who, though he represented himself as actually too poor to pay his ward fees, nevertheless, on leaving the hospital, where he was housed, fed, and treated gratis, he willed away to his relatives a stored up treasure of some thousands of pounds! It is a well-known fact that sometimes well-groomed, well-to-do women remove their jewellery, etc., in order to gain admission. And these are usually the most troublesome and the most exacting patients.

Now, sir, this state of things is truly disgraceful. It injures our hospitals, nullifies the charitable object for which they were instituted, injures the medical attendants, and stands in the way of many a deserving patient whose case is perhaps urgent, and who has to wait, often in vain, for a vacancy. Many a poor patient have I seen whose case was jeopardised by this waiting, and I am not so sure that in my hospital practice, one or two deaths after delayed operation were not directly attributable to this cause.

For the sake of all concerned there should be an end to this gigantic imposition. A sweeping reformation is demanded. To effect this, desultory effort is of no avail. Concerted action is imperative. Those most concerned should join in crushing out the evil. The various hospital staffs should meet in conclave to discuss this vital matter. No other course will be of the slightest avail. The governing bodies of the hospitals would naturally fall in with any general decision emanating from such a gathering. Why some such action has has not been taken up to the present is a mystery, except that it might be that some amongst us, through an ill-defined selfish motive, would allow the imposition to continue. I have been told of certain members of medical staffs who, to prop up a reputation by absorbing all the hospital cases they can get hold of, have been more than lax in giving admission orders without due enquiry into patients' circumstantces, even in some instances operating gratis, though other members of the staff who were consulted outside the hospital had named a fee for operating which the patient could well afford to pay. I have also been told of certain specialists who, when patients cannot afford their standard fees, though willing to pay a more moderate sum, admit them into the public hospital under their special care rather than allow them to fall into the hands of other practitioners whose fees are more in keeping with the patients' means.

Now, I must not be supposed to question anybody's special fees. Ours is a profession, practical knowledge of which is only attained by long and hard study, close observation, and abundant experience, and for this reason, and considering the value of life and health, we have a right to charge well. But if a man having standard fees will not reduce them in special instances he has no right to rush to the other extreme just mentioned. Nor, on the other hand, must I be supposed to favour any process of undercutting in professional fees. There is a recognised distinction, however, between the fees of the specialist and those of the young general practitioner who, in keeping to his modest standard, could not be accused of undercutting. It is different in the case of an hon. member of a hospital staff, he being, from the moment of election, on an equal footing with his colleagues, and equally bound to contribute to the honour of the staff and the dignity of his profession. If it be unprofessional in him to undercut his colleagues by accepting miserable fees, or by treating private patients gratis at the hospital, so it is reprehensible in the specialist to admit into a charitable medical institution a patient who can afford to pay a moderate fee. Both are equally culpable; both basely subordinate the hospital to their own ends; both block the road to much-needed reform; and both should be plainly taught that the way to maintain that respect and honour due to, not alone their fellow workers in the staff, but to the profession generally, is not by hustling in this manner for hospital cases, selfishly absorbing at any cost all they can lay hold of, magnanimously obliging private patients with hospital passes and free treatment, and thus aiding and abetting in a distinct fraud, and dragging down the profession to the level of a low trade!

Now, sir, if these things are done by some of the very men who should be the first to oppose a patent and has spread in the Congo in recent years along the lines of communication, *i.e.*, along the rivers. The spread of the disease has been much assisted by the practice of taking large bodies of natives, soldiers, and labourers from one part of the Free State to another. Declared cases of sleeping sickness are easy to recognise; but trypanosomes might be present in the blood for months or years, and the patient nevertheless continue in apparently perfect health. The importance of the early recognition of such cases was obvious, and it had long been one of the chief aims of the members of the Expedition to devise some easy and fairly accurate method of detecting the presence of trypanosomes. They believed that in "cervical gland palpation" they had now an excellent clinical method of detecting an infected person. The presence of the disease could be detected from the enlarged glands. Their work in this direction was far from complete, but they believed that it tended to indicate that no intending labourer or recruit coming from an area in which sleeping sickness existed should be accepted if he was found on examination, other causes being absent, to have fairly numerous moderately enlarged cervical glands. The tsetse fly was incessantly present from Stanley Pool to Basoko. These flies were very numerous among the myriads of islands with which the Middle Congo is strewn, and frequently came on board the steamer while in midstream and distant three or five hundred yards from land. After Basoko was passed there were very few flies, and just after leaving the mouth of the Lomami River the last one was seen on the steamer. Although the natives of the towns at which the Expedition stopped above Basoko recognised the fly, none were found in the neighbouring bush. There was certainly a marked reduction in the number of tsetse flies above Basoko, and it was possible that there might be stretches of river where none occurred. It was an interesting coincidence that where there were many tsetses there was much sleeping sickness. Where these flies were scanty, cases were rarely seen. The common species of tsetse on the Middle Congo is *Glossina palpalis.*

Tasmania.

(FROM OUR OWN CORRESPONDENT.)

The Trouble between the Chief Health Officer and the local Officer of Health for Launceston—The Report of the Royal Commission on Hospitals—An Outbreak of Diphtheria—A Branch of the Royal Sanitary Institute started in Hobart.

THE trouble between the Chief Health Officer and Dr. Wilson, the local Officer of Health for Launceston, which has given rise to much unpleasantness and ill-advised talk, and to which I referred in my previous letter, has culminated in Dr. Wilson's dismissal from office, and in his subsequent issuing of a writ against the Chief Health Officer. The case is expected to come before the Supreme Court about April. It is much to be regretted that some amicable settlement could not have been arrived at between the various parties concerned in the matter. To fill the vacancy thus created, the City Council of Launceston has appointed temporarily Dr. L. G. Thompson, while it has retained Dr. Wilson in its service by creating him Inspector of Abattoirs.

The report of the Royal Commission on Hospitals, which has completed its investigations, is looked for with some interest, although the medical profession is hardly satisfied with the composition of the Commission. No objection can be raised to the personal character and ability of the gentlemen comprising the Commission, but it is felt that it was lacking in that expert professional knowledge which was necessary for such an enquiry, and which could only have been obtained by the presence of a skilled lunacy physician and of a medical man engaged in active hospital and private practice. In Launceston both the medical profession and the chemists made very serious complaints to the Commission about the hospital abuse which was going on, and it is to be hoped that steps will be taken by the Government to put a stop to this. The practice now prevails of well-to-do people being regularly treated at the hospital as indoor and outdoor patients, and this practice seems to be encouraged by the committee of management and resident staff, judging by the fact that at a recent meeting of the committee congratulatory speeches were made on the steady increase of the fees paid by such patients.

An outbreak of diphtheria occurred in January at Oatlands, a township about 50 miles from Hobart, 28 cases being reported in six weeks. A temporary isolation hospital consisting of three large tents was, on the advice of the Public Health Department, established in the courtyard of the old gaol, under the charge of Dr. Savage, the local medical officer of health, and all the town cases, in which proper isolation could not be secured at home, were removed to this hospital. One death occurred, and several cases of slight paralysis were met with. A few scattered cases were reported from the surroundng country, but the disease was apparently got rapidly under control by the measures adopted.

Puerperal fever is now classed as an infectious notifiable disease, and the result is that both in Hobart and Launceston such reported cases are investigated, and the nurses attending such cases are required to take measures against conveying the disease to other patients. Such action has been taken not a moment too soon, as instances have occurred of a dirty midwife not only starting a puerperal sepsis, but also disseminating the infection amongst her unfortunate clientèle.

A branch of the Royal Sanitary Institute has been started in Hobart, and preparations are to be made for the instruction and examination of sanitary inspectors, plumbers, etc. Such a scheme will, it is to be hoped, prove of assistance in the providing of trained sanitary inspectors for the town boards, most of the holders of such positions being at present absolutely ignorant of health matters. A course of lectures and demonstrations in school hygiene for teachers has been instituted in Hobart by Dr. Elkington, by arrangement with the Education Department, over 100 teachers from State and private schools attending the first lecture. Arrangements are also being made whereby elementary hygiene and domestic economy will be taught in the State schools.

HOSPITAL PHILANTHROPY.

(To the Editor of the Austrasian Medical Gazette.)

Sir,—It will, I think, be generally admitted that the medical is the most philanthropic of all the professions. But philanthropy may be misplaced. It is a virtue only when applied to cases legitimately demanding its exercise. It can have nothing in common with imposition. Applied in such cases it ceases to be charitable and ennobling, and becomes pernicious and lowering; it has degenerated into a prop and stimulus to fraud, pretension and dishonesty, and is a hindrance to wise and deserving charity.

Seeing for many years past a great and growing imposition of this nature in connection with our public close. (4) That the principle should not be allowed to extend, as the results cannot fail to be disastrous to the profession.

I trust, sir, you will find room for this in your columns. I am bringing the matter under the notice of the B.M.A. here, and feel sure of your support.—I am, sir, yours truly,

W. H. HORTON, M.B. (Syd.)

Northern Wairoa Hospital,
Aratapu, N.Z., Feb. 14th, 1905.

THE NOTIFICATION OF PULMONARY CONSUMPTION.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—I have no doubt that the majority of the members of the profession will welcome the action of the City Council in making phthisis a notifiable disease within the bounds of the metropolis. At the same time one cannot view, without a sense of injustice, their decision to pay practitioners a smaller fee for the notification of their lodge patients than they deem adequate in the case of private patients. Surely, because a man elects, or is perhaps even compelled by force of circumstances, to adopt club practice, that is no reason why his services in a *public* cause should be assessed at a lower figure than those of his more fortunate colleagues in the profession.

I hope, sir, that some steps will be taken by the Council of the Association to bring this matter under the notice of his Worship the Lord Mayor, with a view to a more just arrangement being made.—I am, etc.,

SYDNEY JAMIESON.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong reports that the deaths of residents in the metropolitan municipalities (Sydney and suburbs) during February, exclusive of patients in the Gladesville and Callan Park Hospitals for the Insane, numbered 384. This number corresponds to an annual death rate of 8·72 per thousand of the estimated mean population for the year, which is the lowest death rate experienced during February for many years. Corrected by the inclusion of the metropolitan proportion of deaths in all Hospitals for the Insane and Benevolent Asylums throughout the State the rate given above becomes 9·37 per 1000. Diarrhœal diseases caused 58 deaths, as compared with a quinquennial average for February of 85. The distribution of the deaths from these causes was markedly in favour of the city, in which they were only responsible for seven deaths, as against 51 in the suburbs; but in both city and suburbs the mortality under this head was much below the average. The principal infectious diseases, exclusive of diarrhœa, caused 9 deaths, of which 2 were attributed to measles, 1 to scarlet fever, 2 to diphtheria, and 4 to typhoid fever. The total mortality in this group is unusually low. That from typhoid fever is lower than has been experienced in the month of February for ten years. One death occurred from cerebro-spinal meningitis. Deaths from phthisis numbered 24, and those from cancer 23, both of them being below the monthly average. Respiratory diseases were again less fatal than usual—one death was attributed to bronchitis and 16 to pneumonia. Bright's disease caused 19 deaths. The infantile mortality was again extremely low. The number of infantile deaths registered was 102, which corresponds to an infantile death rate of 90 per 1000 births. This rate is 35 per cent. below the average rate for the same month during the preceding five years. The principal causes of infantile mortality were:—Prematurity, 17 deaths; diarrhœal diseases, 36; developmental diseases, 26. Notified attacks of infectious diseases during the month totalled 157, of which 45 were scarlet fever, 47 diphtheria, and 65 typhoid fever.

Health of North Sydney.—The satisfactory sanitary condition of North Sydney was referred to by the Mayor (Alderman J. Carter) in his annual report, presented to the council last month. The number of infectious cases reported were much less than those of the previous year, the returns showing 60 cases of scarlet fever as against 153, 45 cases of diphtheria as against 30, and 14 cases of typhoid as against 54. The decrease in scarlet fever and typhoid had been most marked, and although there was an increase of diphtheria, the majority of the cases were of a very mild nature. The reticulation schemes being carried out would, it was expected, vastly improve the sanitary condition of the borough. Instructions have been given to the sanitary inspector to make a systematic house-to-house visitation during the new year, by which means the council will be in a position to know the sanitary history of every tenement, and enable it to deal with nuisances and dwellings unfit for habitation.

The Compulsory Notification of Pulmonary Tuberculosis in Sydney.—The by-laws framed by the City Council providing for the compulsory notification of consumption have been duly gazetted, and are now in operation. Dr. Armstrong has prepared the following circular, which is being issued to members of the medical profession:—"Medical practitioners notifying cases of pulmonary consumption are invited to state whether they wish the premises occupied by the patient to be visited by the City Health Officer or otherwise. If otherwise, the expression of the wish will be respected, but in such cases the medical practitioner should warn the occupier of the premises in which the person notified resides that any change of residence by the patient must be forthwith notified to the City Health Officer on pain of a penalty of not more than £10, which is incurred by every householder who fails to so notify such removal on the part of a patient. If notifying medical practitioner wishes the premises to be visited by the City Health Officer, or if he fails to express a wish in the contrary sense, the City Health Officer will, as soon as possible after the receipt of the notification, visit the premises occupied by the patient and make inquiries as to the precautions being adopted against the spread of infection, and will issue to the patient's friends what advice he may think desirable on the best means of checking the spread of infection. In all cases the utmost care will be taken to avoid alarming unnecessarily the friends of patients, and to impress on them the certainty that by the employment of proper precautions the danger of infection can be reduced to a minimum. In all cases coming to the knowledge of the City Health Officer in which death or change of residence has caused the removal from premises within the city of a consumptive person, the premises will be disinfected by the staff of the City Health Officer."

Queensland.

Bubonic Plague.—For two weeks ending 11th March, 1905, three cases of plague occurred in Brisbane during the above-mentioned period:—Number of cases declared to date, 22; cases declared during two weeks, 3; cases discharged, 4; remaining under treatment, 7; deaths during the week, 2; last case 9th March, 1905. Rats and mice destroyed during week, 1906 rats, 324 mice; rats and mice examined at bacteriological institute, 937 rats, 237 mice; rats and mice infected, 48 rats, 0 mice; date of last infected rat, 10th March, 1905.

Rat Extermination.—The health authorities still find trouble in making everybody understand the virtues of cleanliness, and the danger which arises from rats. The Health Department have spent some £50 in one place of late in the work of rat extermination, and in another case a stock of about 200 tons of material had to be removed before a number of rat burrows could be got at. Work of this class is getting beyond the limited funds and staff of the department, and something will probably be found necessary at an early date giving local authorities power to enforce penalties upon people whose premises provide harbours for rats. The number of plague rats discovered of late is increasing, and in one case at least as many as six infected animals have come from the same premises.

Victoria.

Notification of Infectious Diseases.—Many medical men seem not to be aware that they are required by a regulation under the Health Act to furnish the local municipal authorities with a report of all cases of death from phthisis, typhoid fever, diphtheria and other infectious diseases happening under their care. The Booroondara Council has frequently had to complain of this ignorance during the last few months, and it now intends to compel compliance with the regulations.

Examination of Pathological Specimens.—The Victorian Public Health Department some years ago made arrangements with the University bacteriological laboratory by which all registered medical practitioners could have bacteriological examinations made without charge for diagnostic purposes in cases of diphtheria (throat swabs), typhoid fever (blood for Widal's reaction), and phthisis (sputum). Sterilised swabs, capillary tubes and phials for sputum may be obtained by medical men on application at municipal offices throughout the State, the board having arranged to supply them to councils for distribution. Printed directions are attached to the articles referred to, and, under arrangements with the postal authorities, specimens, if packed according to directions, may be transmitted by post on payment of the registered parcel fee. It is the desire of the department that medical men should not lose sight of these facilities by which examinations can be made in the case of patients who are not in a position to pay for examination by private bacteriological experts.

Tasmania.

Vital Statistics.—During the year 1904 1735 births were registered in the registration districts of Hobart and Launceston. This shows an increase of 151 births as compared with last year, and an increase of 225·6 as compared with the average of the births registered in the last five-yearly period. To every 1000 of the population of the two districts the proportions of births registered were as follows:—For Hobart, 28·65; for Launceston, 34·21: all, 30·77. The deaths registered in 1904 in Hobart and Launceston numbered 932. The total number of deaths registered in the two districts during 1904 is 91 less than last year, and shows a decrease of 8·2 as compared with the average number of deaths registered during the last five-yearly period. To every 1000 of the population of the respective divisions the proportions of deaths registered were as follows:—Hobart, 16·95; Launceston, 15·85: all, 16·53. The deaths under five years of age numbered 241, or 25·86 per cent., of which 200 were under 1 year of age; the deaths between 5 and 65 years of age numbered 367, or 39·38 per cent.; and the deaths 65 years and upwards numbered 324, or 34·76 per cent. The chief causes of deaths of the combined districts were:—Diseases of the nervous system, 47; diseases of the circulatory system, 132; diseases of the digestive system, 94; phthisis, 44; cancer, 31.

A Pure Milk Supply.—At a special meeting of the Milk Vendors' Association, held in Hobart last month, Dr. Elkington, the Chief Health Officer, assisted by Mr. A. Conlon, dairy expert, gave some information as to the methods by which a pure milk supply might be obtained. He pointed out the absolute necessity of the strictest cleanliness in every particular. He quoted sections from the Public Health Act showing the heavy penalties which were provided for infringement of the clauses dealing with the milk supply, such as water adulteration, the use of preservatives, etc. He mentioned that in addition to the Public Health Act there were some remarkably good city by-laws affecting the milk supply which would appear to be more honoured in the breach than in the observance, since an inspection of the dairies made last year revealed bad defects in 66 per cent. of the dairies. Dr. Elkington warned them, however, that the penalties under the Tasmanian Health Act when once set in motion would be rigorously followed up. His address was illustrated by lantern slides, showing disease-spreading germs in milk, and also pictures of dairies in Tasmania with improved conditions.

South Australia.

Central Board of Health, Adelaide.—At a meeting of the Central Board of Health, held at the offices, Victoria-square, on March 1st, a letter was received from the secretary to the Blind and Deaf and Dumb Institution at Brighton, forwarding an extract from Dr. Borthwick's report on cases of typhoid fever which had occurred in the institution, which showed that at the institution itself and the surroundings there was nothing to account for the disease. Dr. Borthwick's view was that some cause common to the town of Brighton should be looked for, with which opinion, it was stated, Dr. J. H. S. Finniss, officer of health for the town of Brighton, entirely concurred. The infectious disease returns showed 7 cases of typhoid fever at Penola, 2 at Rhynie, 2 at Kadina, 2 at Port Pirie, and 1 at each of the following places:—Norwood, Hawthorne, Clare, Kent Town, Mount Barker Junction, and Tea-tree Gully. Four cases of pulmonary tuberculosis at

Port Adelaide, and 1 at each of the following places:—Alberton, Norwood, Marden, Parkside Asylum, Athelstone, Bowden, Spalding, Stepney, Unley, Wallaroo, and Hilton. Three cases of scarlatina at Port Adelaide, 3 at Wallaroo, and one at each of the following places:—Kent Town, Croydon, and West Adelaide. One case of erysipelas at each of the following places:—Adelaide, Port Adelaide, Spalding, and Aldgate. One case of puerperal fever at each of the following places:-Marrabel, Clarence Park, and Wauraltie. Two cases of diphtheria at Eudunda. The infectious disease mortuary returns showed 5 deaths from pulmonary tuberculosis at Adelaide, and 1 at each of the following places:—Yarrah, Marion, Keswick, Belair, Hundred of Murbko, and Gawler South. One death from typhoid fever at each of the following places:—Adelaide Hospital, Adelaide, Kapunda Hospital, near Lyndoch Valley, and Petersburg.

West Australia.

Population Statistics.—The Government Statistician, Mr. Fraser, estimates that the population of Perth and suburbs on December 31st last was 49,600, and that of Fremantle and suburbs on the same date 25,700. The population of Western Australia on February 28th was estimated at 244,764, being an increase of 1465 for the month, and an increase of 15,193 for the 12 months.

Plague in the Clarence River District.

We learn that no further cases of plague have occurred in this district since our issue of 20th February, and that the last infected rat was taken on February 23rd, at a farm somewhat removed from the village of Ulmarra. As three weeks have elapsed since the date mentioned, during which the staff employed has continued its search without further result, it may be hoped that the infection has been cleared away. Preventive operations ceased, and the district was declared clean on the 14th March.

Although no case occurred on the Clarence River after January 27th, Ballina reported one on February 10th. This town is situated on a small island at the mouth of the Richmond River, connected with the mainland by a narrow neck. It consists of about 400 houses, and is practically occupied by them, there being very little cultivation. It lies some 60 or 70 miles from the Clarence, and is so separated from it as to negative migratory communication between the rats of the two districts; but it is possible that rats may have been transported there from the Clarence before its presence in the latter district had become known. However, it is considered to be more likely that it was independently infected by sea. The patient was attacked on February 3rd, and was admitted to Ballina Hospital a week later, when the case was first notified. She was the wife of a baker, whose premises abutted on the river front. There was a vague history of dead rats having been seen about January 21st, but nothing very definite; and no dead rats were found on the premises, which, nevertheless, showed many signs of recent infestation. The tactics now many times described were adopted; they contemplated the rat alone. The result of the investigation was to discover plague-infected rats at about seven different premises, of which the river front near the wharves appeared to be the most important, and with which the remainder were more or less directly connected by a stormwater drain which ran from it into their neighbourhood. Cleansing and rat destruction were carried to a point at which it became almost impossible to catch another live rat, and after a brief but energetic campaign, which lasted only 14 days, and during which no further case occurred, the place was declared clean on February 25th, and the staff returned to the Clarence district, whence it had been detached.

During these latter times we hear more and more about rats in connection with plague; but it would be a mistake to suppose—as writers too often assume—that the exclusive importance of the rat as the cause of epidemic plague is generally recognised. In support of this statement it is, perhaps, enough to refer to the discussions which took place at the International Sanitary Conference of Paris, December, 1903, in the scientific sub-committee of its Technical Committee. The only resolution on this topic to which the Conference was able to agree was a colourless statement "that the rat constitutes a danger in the dissemination of plague"; an opinion, it will be observed, which left the matter very much where the Committee found it. We do not know of any other country in which the exclusive importance of the rat has been perceived and held fast as it has in Australia, nor do we know of any other part even of Australia than the State of New South Wales—certainly of no other country in the world—where that knowledge has been made the sole basis of preventive operations, or where such operations have been followed with the instant and decisive success which has attended them in New South Wales in the years 1903, 1904, and 1905.

HOSPITAL INTELLIGENCE.

Carrington Hospital for Convalescents, New South Wales.—The annual report presented at the meeting of the subscribers to the Carrington Centennial Hospital Home for Convalescents held last month showed that the year was commenced with a credit balance of £282 13s 9d. The total receipts from subscriptions, donations, legacies, Hospital Saturday Fund, and contributions from patients amounted to £1648 18s 4d, as against £1097 6s 5d for the previous year. Other sources from which income was derived were Government subsidy, £1114 9s 2d (of which £399 7s 9d was for 1903), and for maintenance of Government patients, £2252 7s 4d (of which also £596 15s 4d was for 1903), rent and interest £391 9s 9d, making the total income £5407 4s 7d. The expenditure for the same period was as follows:—Salaries and wages, £1149 10s 3d; provisions, £1056 1s 10d; general supplies, £494 4s 10d; transit of patients (including the amounts standing against forage and horses and vehicles), £394 12s 7d; part payment of sanitary improvements, £118 4s 4d; total, £3212 13s 10d. There was withdrawn from the working account £300 as a deposit on the purchase of City of Sydney 4 per cent. debentures, and the substantial amount of £2000 8s 5d placed to the credit of the endowment fund, besides £33 8s 1d (accrued interest) on the bed endowment fund, the year closing with a balance of £143 8s 1d. The average cost of each occupied bed during the year was £34, a decrease of £4 6s 10d compared with the previous year. The sum of £400 incurred annually in the conveyance of patients to and from the hospital has to be borne in mind, adding £4 7s to the cost of each occupied bed.

The total number of available beds is 105. At the end of 1903, 92 patients remained in the hospital, and 1191 were admitted during 1904. Of these, 1117 fully recovered their health, 59 were much improved, 13 were apparently not much benefited, 2 died, and 92 remained in the hospital on December 31st last. Contributions were received from 61 patients towards their maintenance, amounting in all to £107 6s 8d, against a total expenditure of £3213. Of the remaining 1222 patients, 664 did not contribute, and 558 were admitted on Government orders. Sir James Fairfax and Hon. H. Moses, M.L.C., were reappointed by his Excellency the Governor to the committee, as were Dr. Cecil Purser and Mr. P. F. Marich by the representative of the late Mr. W. H. Paling, and Messrs. E. R. Deas-Thomson and T. F. Knox were elected by the meeting.

Women's Hospital, Sydney.—The ninth annual report and financial statement of the Women's Hospital, Surry Hills, presented to a meeting of subscribers last month, complained of the lack of accommodation in the present building, and that it was through lack of funds that the directors could not see their way to accept an offer for more commodious premises. Numerous cases for indoor treatment had to be refused on this account. A total of 414 cases had been treated during the year in the indoor department, whilst the outdoor department had treated 1870 cases. It was pointed out that the fifth year medical students of the University continue to avail themselves of the opportunities afforded them of gaining practical experience at the hospital. Receipts from all sources aggregated £2671 11s 2d, of which the State Government contributed £547 17s 1d as subsidy, £811 0s 4d was received from nurses for board and lecture fees; patients' contributions amounted to £168 4s 6d; and public subscriptions and donations to £989 16s 9d. Expenditure totalled £2823 19s 2d, of which £306 was for rent, and £193 15s 6d for incidentals. The overdraft from December 31st, 1904, stood at £157 5s 4d. The average cost per bed was £51 19s.

Zeehan Hospital, Tasmania.—At a special meeting of the Hospital Board on February 23rd the sub-committee's report on the medical question was adopted. The report recommended that two medical officers be appointed, independent of each other, and under control of the board—one to be medical superintendent and responsible for internal administration of the hospital. The doctors to both have right of private practice, and to be paid for their services to the board on the following system:—Twopence per week to be deducted from each subscriber as a retaining fee fund, of which five-ninths will be apportioned to the senior medical officer, and four-ninths to the junior, and they shall also receive remuneration from all the subscribers who may be on their respective lists as follows:—3½d per week from married and 1½d per week from single subscribers, and it is estimated on a basis of 1000 subscribers that the senior officer will receive about £240 yearly as a retaining fee, and the junior £190. Dr. Butler was offered and accepted the position of medical superintendent.

Benevolent Society of New South Wales.—The annual report of the Benevolent Society of New South Wales was submitted recently to a meeting of subscribers, and stated that in 1904 1640 women and children, compared with 1684 in 1903, had come under the influence of the operations of the indoor departments. With regard to the number of women cared for during the year, viz., 795, there was an increase of 47 over the previous year. The children dealt with numbered 845, as against 936 in 1903. The loss in the maintenance of the society, which was, roughly, £3000 in 1903, had been reduced to £1329 14s 8d, and the society's income and expenditure were respectively £9192 4s and £10,521 18s 8d. Owing to the fact that the Government had paid three instead of four quarters' maintenance of inmates, the loss was reduced by about £600. Owing to the withdrawal by the Government of the special subsidy of £1000, and the reduction effected in the allowance for the maintenance of adult inmates, combined with increased expenditure and an insufficient income, the society, the report continued, was left with the alternative of either drawing on its capital by an overdraft or letting the genuine poor want. The response to requests for financial aid made by the public during the year, the directors regarded as very gratifying. A sum of £2776 4s 6d had been collected as a result, being an increase of £837 8s 7d over last year, which amount, with the exception of that received in 1895, was the largest annual record in the society's history. With regard to the house returns of the Benevolent Society's institutions during 1904. there was admitted a total of 1109 women and children, the births totalling 370. The discharges had been 707 women and 673 children. There had died in the institutions 45 children; the numbers remaining as at the end of last year are: 88 women and 82 children.

Women's Hospital, Melbourne.—Having considered the criticism of the Inspector of Charities, relative to the management of the Women's Hospital, the sub-committee of the honorary medical staff reported at the last meeting of the committee of the institution that the inspector had complained of the cost per occupied bed, namely, £77, and had suggested that the hospital should be worked for £60 per occupied bed per annum, or as cheaply as the larger metropolitan general hospitals. The report pointed out that the inspector's figures implied a comparison of a special hospital with a general one, but there was manifestly little or nothing in common between them. Whilst the cost was higher than at a general hospital, the Women's Hospital accommodated far more patients per occupied bed. Each patient cost less, but the fact of the patients passing so rapidly through the wards meant more expense in many ways. For an average of 91 occupied beds, there was a resident staff fully lodged and boarded of 76, or about one to one and one-fifth patient. That was higher than any other hospital, and there was the main extra expense in food, as the actual food eaten by a patient was small compared to what was required for a member of a very hard-worked staff. The numbers were not excessive, as the class of patients needed nursing the whole time, and no assistance could be given by patients, as at a general hospital. The inspector had stated that two and a half infants counted as one patient, and considered that a liberal allowance. They noted that whilst he had, in estimating the cost per bed, allowed for infants, still in the return of the gross number of patients treated he had not taken the 1120 babies born alive into consideration, and that, at a two-fifth allowance, equalled 448 adults. The special nature of the work necessitated the use of larger quantities of some expensive drugs and sundries. They could not do with cheaper drugs, and every effort was made to economise, the cost having been greatly reduced during the last two years. The sub-committee was therefore forced to the conclusion that the inspector had under-estimated the work of a special hospital. The report was signed by Drs. G. R. Adam, R. H. Fetherston and H. C. Lloyd.

Austin Hospital for Incurables, Melbourne.—The Austin Hospital committee have again discussed the opposition offered by the Government to the opening af the Kronheimer consumptive building. The committee had found it necessary to make an extra vacancy in the present tuberculosis wing, in order that a pitiful case of a married man living in one room in a suburb should be met. The sufferer has a wife and two children, and is accommodated with the room by his brother. This case brings the number of patients in the hospital up to 149, of whom 50 are consumptive sufferers. There are still 50 consumptives awaiting vacancies in the Austin Hospital. The committee would gladly erect a few tents to ease the worst of these cases but for the letter from the Health Department, declaring that such an action would be illegal. At present the tuberculosis wing is fuller than it has ever been before.

The laundry block at the Sydney Hospital is to be enlarged. Plans for this work have been prepared by the architects to the institution, Messrs. Robertson and Marks, and tenders will shortly be called.

Infectious Diseases Hospital, Melbourne.—A sub-committee which some time ago was appointed by the committee of management of the Infectious Diseases Hospital to inquire into the question of permitting municipalities which heretofore have stood aloof from the hospital to participate with the present controlling municipalities in the government and maintenance of the institution, submitted a report on the subject at a meeting of the committee which was held at the Melbourne Town Hall on March 9th. The sub-committee recommended that outstanding municipalities should be admitted on the following conditions:—(1) That payment be made by incoming municipalities of their proportion of current expenses, according to the valuations of the councils contributing; (2) that the share of the money already expended by the seven municipalities, which would have been payable by the new municipalities, on the basis of valuation (less any moneys already paid on account of patients) be now paid by them, and when so paid be credited to the seven municipalities at present undertaking the control and management of the hospital; (3) any municipality so joining to be allowed one representative on the committee of management. The recommendation was approved, and copies of it are to be submitted to each of the municipalities constituting the present trust, and also to the Government.

MEDICAL NOTES.

Charitable Donations and Bequests.—The sum of £2000, a part of the assets of the Sydney Turf Club, which has now been absorbed in the Australian Jockey Club, has been distributed among Sydney charities as follows:—Queen Victoria Homes for Consumptives, £500; Royal Alexandra Hospital for Sick Children, and St. Vincent's Hospital, £200 each; Royal Prince Alfred and Sydney Hospitals, £150 each; Women's Hospital, Paddington, Institution for the Deaf and the Dumb and the Blind, Charity Organisation Society, Royal North Shore Hospital, Carrington Hospital for Convalescents, Parramatta District Hospital, and Western Suburbs Cottage Hospital, Croydon, £100 each; St. George's Hospital, Kogarah, and Manly Cottage Hospital, £50 each.

Large Gifts.—Lord Mount Stephen, who has just given £200,000 to the King's Hospital Fund, is one of the best-known men in the Empire. He commenced life as a shepherd lad in Banffshire. After acting as a draper's apprentice in Aberdeen, he came to London and entered Pawson's warehouse, in St. Paul's Churchyard. In 1850 he emigrated to Canada, and found his cousin, Donald Smith, now Lord Strathcona, These two men pooled their energies, first in banking, and afterwards in railway enterprise. Their greatest achievement was the completion of the railway across the continent to British Columbia in six years, instead of 11 years as promised. In return for this work they received £5,000,000 and 25,000,000 acres of land. Some years ago he and Lord Strathcona contributed £300,000 to the King's Hospital Fund. He gave a hospital costing £100,000 to Montreal. In 1901 he presented the Aberdeen Infirmary with £25,000. Lord Mount Stephen has been twice married, but has no family. He and his first wife adopted a little girl, who is now her Excellency Lady Northcote, the wife of the Governor-General of Australia.

Women Doctors.—A resolution was passed at a public meeting recently held under the auspices of the Women's Progressive Association of New South Wales, protesting against the exclusion of women doctors from the staffs of the Sydney hospitals. The resolution was duly forwarded to the Premier, who has undertaken to look carefully into the matter of the election of resident medical officers at the Sydney Hospital and Royal Prince Alfred Hospital. Mr. Carruthers is of opinion that if women are to be educated as doctors, strong reasons should be shown before they are debarred from the right of practising in public institutions.

Qualified and Unqualified Midwives.—At the annual meeting of the Sydney Women's Hospital, held recently, Sir James Graham, whilst agreeing with the opinion that women doctors should enjoy the same privileges as the men, made some remarks upon the training of midwives. One of the findings of the Royal Commission on the Birth Rate was that the deaths of women in childbirth in this State were unduly numerous, and that some of the women who practised as midwives were "uneducated, untrained, and unsuitable." Recently throughout Great Britain and Ireland boards have been established for the inspection and licensing of midwives, and an inspector has also been appointed who is authorised to report on the general efficiency and surroundings of the midwifery nurse and her methods. In regard to the woman doctor, the public have the protection that she had a thorough scientific university education, and what was wanted was a similar guarantee in regard to midwives.

Blood Examinations.—In recent times a large amount of work has been accomplished on the significance of changes in the blood and its corpuscular elements in various diseases. One of the best stains for detecting the morbid conditions of the blood is the Biondi-Ehrlich-Heidenhain triple stain, and we have received from Messrs. Burroughs, Wellcome & Co. a sample of this stain made in the form of "soloids." One "soloid" Ehrlich Triple Stain should be dissolved in 25 c.c. of distilled water, one "soloid" acid fuchsine in 2 c.c. of distilled water, and the two solutions mixed. The mixture is ready for use and keeps well. Blood films may be prepared in the usual manner, and then

Messrs. Parke, Davis & Co. direct attention to their advertisement on page 12.—[Advt.]

fixed by heating them to 110 C° to 120 C° for 30 minutes. An air oven can be conveniently dispensed with by using a strip of stout sheet copper and heating one end. The place on the copper for fixing the films at this temperature will be found by dropping a little xylol on the copper, and placing the preparation, film side downwards, near the spot at which the xylol just boils. Preparations thus fixed are then stained for two to ten minutes, washed, and dried. Care should be taken to use neutral Canada balsam or cedarwood oil as a mounting medium. In well fixed and successfully stained specimens the colour to the naked eye is orange or orange red; in under-heated specimens the colour is dark red or reddish brown; and in over-heated specimens the colour is pale lemon yellow. In specimens thus prepared the erythrocytes should be coloured orange, the granules of the neutrophile polymorphonuclear cells and of the neutrophile myelocytes should have a violet, and the acidophile granules of the polymorphonuclear cells a brick-red colour. The nuclei of the above cells are coloured greenish blue of varying shades; while the basophilic granules of mast cells are unstained, and surround a pale green nucleus. In the lymphocytes the nucleus is stained a pale greenish blue, but the cytoplasm takes a faint pink or grey colour. In morbid blood the nuclei of the erythroblasts are stained a greenish black.

Railway and Tramway Hospital and Convalescent Funds.—At the fifteenth annual meeting of the New South Wales Railway and Tramway Employees' Hospital and Convalescent Funds, the report of the committee of management for the year showed that there had been a slight falling off in subscriptions this year, but the committee were hopeful that in the interest of the service at large the time was not far distant when every employee would recognise the utility and responsibilty of subscribing, whether expecting to require the benefits or not. During the year the Railway Employees' Consumptive Fund had been established, so as to deal with the abnormal growth of tuberculosis, which was having a severe effect upon the hospital fund. The report and balance-sheet were adopted. An amount of £10 was voted to the Civil Ambulance and Transport Brigade.

PRACTICES FOR SALE.

N.S.W.: Prac. in good town, wealthy district, est. 44 years, present owner 15½ years, predecessor 20 years. Cash take always over £1000. Appts., £324. This is in a pastoral and farming district, 865 ft. above sea level. Temperature: Summer, 72 deg.; winter, 55 deg. Town has a hospital. We know this prac. well, and recommend it. Price, £750.

N.S.W.: Unopp. prac., near Newcastle, est. 14 years. Cash take, £600; appts., £140. Price, £110. This is a good practice, and cheap.

Queensland: Unopp. Prac. with Hosp. appt. Cash take last 18 years, £900. Appts., £410. Price, £150. Of its kind it is the best in Queensland.

S.A.; A splendid opening is available, In two or three years time would probably be worth £1000.

S.A.: Prac. in Adelaide, which for 26 years has averaged £2000 cash annually. This is a general practice. Price, £750. Good introduction.

N.Z.: In most delightful town. Prac., cash take nearly £900. Good class practice easily worked. Population, 5000. Splendid district. Price, £450.

Mr. F. W. LOXTON, Medical Agent,
16 O'Connell-street, Sydney.—[Advt.

A Nurse Dismissed for Insubordination.—According to a report in the Melbourne *Age* the appeal of Sister Scott, one of the senior members of the Melbourne Hospital nursing staff, against her dismissal on the ground of insubordination was heard by a full meeting of the committee on February 28th. The original cause of the trouble was an entry made by Sister Scott in her ward book relating to the use of unsterilised gauze, which the matron and resident medical superintendent considered injudicious, and a reflection upon another nursing sister. Sister Scott was ordered by the matron to apologise to the sister in question and refused to do so. The matron thereupon transferred her to an inferior position, and Sister Scott refused to comply with the matron's order, and was then suspended. The staff committee investigated the matter and recommended Sister Scott to resign by a certain date or accept dismissal. It was against this decision that the appeal was lodged. A great deal of evidence was taken, including that of the matron, the medical superintendent, and half-a-dozen nurses. Sister Scott stated that the entry in her ward book was made wholly and solely in the interests of her patients, and in compliance with the desires of the surgeons, who enforced the strictest compliance with their orders in regard to using sterilised gauze in operations. She felt it was her duty to leave a memorandum in the book that would assist nurses to guard against the repetition of what she had regarded as a most serious mistake. After a long deliberation a majority of the committee decided to uphold the staff committee's recommendation.

Bovril.—The continued growth in the demand for Bovril is a testimony to the great value of this celebrated food beverage. The fact that it is such an effective and ready weapon against the ills which lie in wait for those who are run down from any cause explains a good deal of its unique popularity. The effectiveness of Bovril is not lessened under any sky or in any climate, and it is easy to understand why Bovril has become a household word throughout the British Empire. Bovril stimulates and nourishes, and in this respect it excels beef tea and ordinary extract of meat. Unlike alcoholic drinks, it stimulates without reaction. Bovril is kept constantly in use in over 1500 hospitals, infirmaries, etc., in Great Britain.

St. John Ambulance Association.—At the annual meeting and demonstration of the Association held last month the report for the year showed that the number of those who attended a course of instruction was 656, of whom 454 obtained certificates, and 19 qualified for the medallion. The total number of persons who attended a full course of ambulance lectures since the establishment of the centre now amounted to 9496, of whom 6507 passed their examination, and 321 qualified for medallions by passing the third and final examination. In other respects the report was regarded as of a satisfactory character, and on the motion of the Governor, who gave a sympathetic address, seconded by Professor Anderson Stuart, the report was adopted.

The Japanese Military Medical Service.—From a contemporary journal we learn that Dr. Louis L. Seaman, an American, has returned to his country from the East, and in the course of an address to the International Congress of Military Surgeons, said: "Too much praise cannot be bestowed upon the medical department of the army and navy for their splendid preparatory work in this war. The Japanese are the first to recognise the true value of an army medical corps. Care of the sick and wounded consumes but a small part of their time. The solution of the greater problem, preserving the health and fighting value of the army in the field—by preventing disease, by careful supervision of the smallest details of subsisting, clothing, and sheltering the units—is their first and most important duty. Their capacity for detail is something phenomenal; nothing seems too small to escape their vigilance or too tedious to weary their patience, and everywhere—in the field with the scouts or in the base hospitals at home—the one great prevailing idea is the prevention of disease. The medical officer is omnipresent. You will find him in countless places where in an American or British army he has no place. He is as much at the front as in the rear. He is with the first screen of scouts, with his microscope and chemicals, testing and labelling wells, so that the army to follow shall drink no contaminated water. When the scouts reach a town, he immediately institutes a thorough examination of its sanitary condition, and if contagion or infection is found he quarantines and places a guard around the dangerous district. Notices are posted, so the approaching column is warned, and no soldiers are billeted where danger exists. Microscopic blood tests are made in all fever cases, and bacteriological experts, fully equipped, form part of the staff of every divisional headquarters."

Friendly Societies.—At the annual meeting of the Friendly Societies' Association on February 3rd it was stated that in New South Wales there were 63 friendly societies, with 990 branches, the total membership being 96,671. Seven per cent. of the population were members of friendly societies, but at least 400,000 persons were involved in the prosperity of the various bodies. Reference was made to the Public Service Mutual Provident Fund, and it was decided to communicate with the Registrar urging that immediate action should be taken to test the legality of that fund. The President stated that the attention of the Chief Secretary had recently been drawn to a number of lodges, societies, and organisations carrying on the same work as friendly societies, and to the advisability of amending section 6 of the principal Act by striking out the word " may,' and inserting the word " shall." Unless something was done, it was not improbable that some of the societies would take the necessary steps towards a cancellation of their registry. There were many anomalies in the Act which required to be remedied, and he was glad to be able to inform them that the Chief Secretary had promised to give the matter close attention during the recess, and to prepare a brief amending bill which would be brought before Parliament next session.

Randwick Asylum.—The annual report for the year 1904 of the directors of the Society for Destitute Children, Randwick, was submitted to a meeting held last month in the main hall of the institution. It states that there were 159 children in the institute at present, and there was sufficient accommodation for 500, but owing to the lack of funds the directors had been compelled to refuse admission to numerous applicants. For 19 years the asylum had been carried on without financial aid from the Government. Since the foundation of the institution over 5000 children had passed through it, and it was gratifying to be able to state that less than 5 per cent. of that number had turned out badly. The health of the inmates during the year had been good, and for the past 16 years only one death had been recorded. It was pleasing to note that the public were beginning to realise more readily their responsibilities towards the institution, as subscriptions had increased to some extent.

Clinical Afternoon at the Royal Alexandra Hospital for Children.—The sixth clinical afternoon was held at the out-patients' department in Valentine-lane on Friday, February 24th. Dr. Littlejohn presided, and there were several visitors present. Dr Menzies showed a child, aged 6 years, suffering from anæmia and an enlarged spleen. A differential count of the white blood cells was promised for the next meeting. Dr. Littlejohn showed a child, aged 11 years, suffering from a spastic hemiplegia of gradual onset; the condition had improved latterly. Dr. Macmaster showed a boy, aged 6 years, suffering from extensive syphilitic disease of the bones. Dr. Litchfield showed a boy, aged 12 years, with undescended testicles; also a boy, aged 11 years, exhibiting defective articulation, without paralysis or nerve lesion.

PERSONAL ITEMS.

Among the passengers by the R.M.S. " Marmora," which arrived at Melbourne from London on February 28th, was Dr. Balls-Headley, who has visited Colombo and Egypt.

Dr. Dalton and Dr. Heggaton have been elected aldermen to fill extraordinary vacancies in the Murrumburrah Town Council, N.S.W.

Mr. William Epps, secretary of the Royal Prince Alfred Hospital, Sydney, has been granted six months' leave of absence in order that he may proceed to England and America for the purpose of investigating the business methods in vogue in the hospitals of those countries. He will leave Sydney on April 17th, and after spending about five weeks in Canada and the United States, will go on to England.

The Victorian Cabinet has approved of the recommendation of the State Minister for Agriculture that Dr. Cherry be appointed Director of Agriculture at a salary of £850 per annum.

The fact that Dr. J. E. Neild has retired from the position of lecturer on forensic medicine at the Melbourne University, after about 40 years' service, has led his friends on the Faculty of Medicine to initiate a testimonial in recognition of his great services to the profession and to the public. The treasurer of the fund, Dr. Jamieson, makes an appeal to his professional brethren to forward their subscriptions to him as soon as possible, as it is intended to close the lists at an early date.

Dr. J. B. Graham, late of Balmain, has returned from England and resumed practice in Macquarie-street, Sydney.

Dr. A. P. Ross has resigned his position of Government Medical Officer and Vaccinator at Condobolin, New South Wales.

Mr. John D. Malcolm, M.B., C.M. (Edin.), F.R.C.S. (Edin.), has been appointed to the Chair of Physiology at Otago University, New Zealand. The new professor is the author of " A Study in Abdominal Surgery." He was educated at Edinburgh and London, and has latterly served as an indoor surgeon to the Samaritan Free Hospital for Women and Children, London.

Dr. Springthorpe was reappointed a member of the Dental Board, Victoria, for a further period of three years.

Dr. Baxter-Tyrie, of the Health Department, Queensland, retires from his position at the end of the month in order to commence private practice at Boonah. We regret to learn that he has been suffering from appendicitis, necessitating operation.

Dr. P. L. Hipsley, late Medical Resident Officer at the Royal Alexandra Hospital for Children, Sydney, has gone to England on a trip for some months.

Dr. C. S. Willis, late of Mount Morgan, W.A., has left on a trip to England.

Dr. H. J. H. Scott has been appointed Deputy Licensing Magistrate for the district of Scone, N.S.W.

Dr. A. Y. Fullerton has been appointed Deputy Licensing Magistrate for the district of Murrurundi, N.S.W.

Dr. M. U. O'Sullivan, on the eve of his departure for Europe, was entertained by the members of the Melbourne Medical Association at a smoke social at the Port Phillip Club Hotel. The president, Dr. D. Murray-Morton, was in the chair, and some 50 members of the medical profession attended. He was entertained on February 16th at a dinner at Menzies' by the honorary medical staff of the Women's Hospital. Dr. Felix Meyer, who presided, proposed the health of the guest, and alluded to his long and devoted service to the Women's Hospital. Drs. Adam, Morton, Fetherston, and Horne supported the toast. Dr. R. H. Fetherston will carry out Dr. O'Sullivan's duties at the Women's Hospital, Melbourne, during his absence.

Dr. Gustav Fritsch, of Berlin, has arrived in Brisbane for the purposes of anthropological research. He is on a tour of the world by order of the German Government, with the intention of studying the aboriginal tribes, particularly the eyes and hair. Much importance is attached to a comparison of the eyes as regards their action in general, and the power of the eyesight in particular. Dr. Fritsch comes with letters of introduction to Dr. Ham (Commissioner of Public Health), and has been referred to Dr. Roth, Chief Protector of Aboriginals.

Dr. T. L. Bancroft, who recently removed to Alderley, Enoggera, Queensland, from the Deception Bay district, where he has resided for about ten years, was presented on March 1st with an illuminated address from residents of that district.

Dr. F. J. Howell has resigned the post of Agricultural Chemist to the Government of Victoria in order to accept a position at Mount Lyell works at Yarraville, Victoria, for the manufacture of superphosphates and other manures.

Dr. R. R. Whishaw has entered into partnership with Dr. Jackson in Brisbane.

Mr. Harvey Sutton, M.B., B.Ch., has been selected as the Rhodes scholar for Victoria for 1905. Mr. Sutton is 23 years of age. In 1895 he gained a State school scholarship, and matriculated in ten subjects at the age of 14, and had a distinguished University career. He will proceed to Oxford to pursue a post-graduate course of study and research in pathology, bacteriology, and physiology.

Dr. Gwynne Hughes, who is to make a two years' trip to Europe, has been given a farewell by the staff of St. Margaret's Hospital, Sydney. Several speeches were made, all expressing regret at the loss of Dr. Gwynne Hughes' services to the hospital. During his absence Dr. Llewellyn Rees will act as Dr. Hughes' representative at the hospital.

The Chief Secretary (Sir Samuel Gillott) entertained Dr. W. E. Jones, the new inspector-general of hospitals for the insane, at lunch at the Grand Hotel, Melbourne. The other guests included the Master in Lunacy, the official visitors to the asylum (Dr. Springthorpe, Dr. Joske, and Dr. J. Jamieson), the inspector of lunatic asylums (Mr. J. B. McCreery, L.R.C.S.), the superintendent of the Yarra Bend Asylum (Mr. W. L. Watkins, L.R.C.S.).

Dr. W. C. Gray has resigned his appointment as public vaccinator at Bulong, W.A.

Dr. T. K. Hamilton, of Adelaide, left for England in the R.M.S. "Oceana" early this month. He hopes to return to South Australia in six or seven months' time.

Dr. Espie Dods, of Brisbane, left in the P. and O. S.S. "Marmora" on a trip to Europe.

Dr. Heinrich Rabl, of Murtoa, Victoria, has left for an extended tour in Europe. Dr. Alexander Lyons is his *locum tenens*.

Dr. Davies, of Yorketown, South Australia, has left on a trip to England.

Dr. E. Ludowici has removed from 1 Castlereagh-street, Redfern, to 283 Cleveland-street, Sydney.

Dr. T. M. Kendall, late of Sydney, has commenced practice in Hobart.

Dr. Newbury Browne, of Maitland, has been appointed to the position of chief medical officer of New Guinea. He has practised in tropical climates, and has travelled much in the East.

Dr. Gorger, who was at one time a leading medical man in Adelaide, with whom Dr. R. H. Marten was in partnership, died suddenly at Cannes on February 8th.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Bartley, Joseph Francis, M.B., Ch.B. (Melb.), to be Medical Officer and Vaccinator at Broken Hill, *vice* Dr. H. J. F. Groves, deceased.
Bennett, Agnes E. L., B.Sc., M.B., C.M., to be Junior Medical Officer in the Lunacy Department, on probation.
Harris, John, M.B., Ch.M., M.D., to be Hon. Assistant Physician to the Sydney Hospital.
Holland, Joseph, M.B. (Syd.), to be Resident Medical Officer at St. Vincent's Hospital, Sydney.
Sinclair, Thomas Walker, M.D., to be appointed, on probation for six months, as Assistant Medical Officer of Health for the Metropolitan Combined Districts.

VICTORIA.

Anderson, John, M.D., to be Officer of Health for the East Riding of the Council Shire of Ballan, *vice* James Henry Sleeman, M.B., resigned.
Baird, John Charles, M.B., to be Officer of Health for the Shire of Healesville.
Cherry, Dr., has been appointed Victorian Director of Agriculture at a salary of £850 a year. The term of appointment is not to exceed five years.
Ffrost, Valiant Galfred, L.R.C.S., to be a Public Vaccinator for the South-eastern District, *vice* Edward Harkness, L.R.C.S., resigned.
Macknight, Charles Crawfurd, M.B., to be Officer of Health for the Shire of Warrnambool, *vice* John William O'Brien, M.B., resigned.
Watkins, W. L., to be Medical Superintendent at Yarra Bend Asylum.

SOUTH AUSTRALIA.

MacMillan, A. R., M.B., Ch.M. (Edin.), to be Medical Officer to the Narracoorte Hospital.
The following legally qualified Medical Practitioners for the purpose of "The Workmen's Compensation Act 1900," *viz.*:—
Cleland, William Lennox, M.B., Colonial Surgeon.
Wilson, Thomas George, F.R.C.S.

WEST AUSTRALIA.

Ambrose, Theodore, to be Officer of Health, Mount Magnet, *vice* Dr. Willis, resigned.

Browne, Dodwell, M.B., Ch.B., to be Resident Magistrate, District Medical Officer, Quarantine Officer, and Public Vaccinator at Port Hedland.

Corlis, J., J.P., to be Licensing Magistrate for the North Coolgardie Licensing District, *vice* P. J. Moloney, J.P. resigned.

Harrison, W. A., M.B., Ch.M. (Edin.), to be Officer of Health at Esperance.

Humphrey, E. S., to be Officer of Health, Southern Cross, *vice* A. Corley, resigned.

McWilliams, George Frederick, M.B., Ch.B., to be a member of the Central Board of Health, Perth, W.A., *vice* G. C. Money.

Moloney, Patrick Joseph, to be Acting District Medical Officer, Acting Public Vaccinator, and Acting Quarantine Officer at Port Hedland, pending the arrival of Dr. Browne from Wyndham.

Rigby, E. H., to be Resident Surgeon at the Nannine Hospital, Murchison.

TASMANIA.

The following gentlemen as ex-officio members of the Board of Management of the Launceston General Hospital :—

Pardey, J. M., M.B., Ch.B.
Parker, C., M.B., C.M.
Webster, J. A., M.R.C.S., M.D.

NEW ZEALAND.

Brett, Edward Seymour, M.B., Ch.B. (Edin.), to be Assistant Medical Officer of the Mental Hospital at Seacliff.

Douglas, Alexander, M.B., M.S. (Edin.), to be a Port Health Officer, Oamaru, *vice* Dr. Barclay, resigned.

Newell, John Alexander, B.A., M.B., B.Ch., to be Surgeon of H.M. Prison at Lyttelton, *vice* Dr. Thomas Wyld Pairman, resigned.

Makgill, Robert Haldane, M.B. (Edin.), D.P.H. (Camb.), to be Bacteriologist to the Health Department.

The undermentioned persons to be Public Vaccinators for the districts set opposite their names respectively, viz. :—

Browne, William Frederick, M.B., B.S. (N.Z.), Brunnerton.
Burrell, Adam Guthrie, M.B., M.S. (Glasg.), Oxford.
Newell, John Alexander, M.B., B.Ch., *vice* Dr. Pairman, resigned), Lyttelton.
McIlroy, Alexander Joseph, M.B., Ch.M. (Edin.) (*vice* Dr. Brugh, resigned), Black's.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been duly registered as legally qualified Medical Practitioners in their respective States :—

NEW SOUTH WALES.

Hallen, Arthur Herbert, M.B., M.S., 1889, M.D., 1892 (Edin.).
Letcher, Herbert Richard, M.B., B.S. (Melb.), 1895.
McDowall, Valentine, M.B. (Syd.), 1905.
Roberts, Alfred John Spencer Cecil, M.B. (Syd.), 1905.
Sinclair, Thomas Walker, M.B., B.S., 1897, M.D., 1901 (Melb.), D.P.H., R.C.P.S. (Eng.), 1903.

For Additional Registration :

Fitzpatrick, Edward Bede Lucien, M.Ch. (Syd.), 1903.

SOUTH AUSTRALIA.

Ambrose, Ethel Mary Murray, M.B., B.S. (Adel.), 1903.
Burnard, Renfrey Gershom, M.B., B.S. (Adel.), 1904.
Chapple, Phœbe, M.B., B.S. (Adel.), 1904.
Cooper, Constance May, M.B., B.S. (Adel.), 1904.
Maclean, James Megan, L.R.C.P. and S. (Edin.), 1901.
Maclean, Roland, M.B., 1895, B.S., 1896 (Melb.).
O'Reilly, Susannah Hennessy, M.B., (Syd.), 1905.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

HARVEY.—February 4th, at Raffeen, Esplanade, Manly, Sydney, the wife of Dr. L. Watson Harvey—a daughter.

LEMON.—February 5th, at Toolangi, Glenferrie-road, Hawthorn, Victoria, the wife of Ferguson Lemon, M.B., B.S.—a daughter.

McDOUALL.—February 3rd, at Gladesville Hospital, Sydney, the wife of H. C. McDouall, M.R.C.S. (Eng.), L.R.C.P. (Lond.), D.P.H. (Camb.), Medical Superintendent—a daughter.

NORMAN.—On February 4th, the wife of Dr. Walter Norman, of Goolwa, S.A.—a son (Robert).

MARRIAGES.

BRENNAN—O'DONNELL.—January 16th, at St. Mary's Cathedral, Sydney, Dr. John Brennan, of Cootamundra, N.S.W., to Margaret, second daughter of P. J. O'Donnell, of Mingay Station, Gundagai.

DORAN—SHELLEY.—February 4th, Clarence, third son of T. Miles Doran, M.D., M.R.C.S., of Limerick, Ireland, to Marguerite A. I., youngest daughter of George W. and Mildred Shelley, of Glebe Island, Sydney, N.S.W.

JOYCE—FERGUSON.—February 4th, at the Manse, Perth, Western Australia, Caleb Joyce, M.B., B.S., third son of Robert James Joyce, Geelong, to Agnes Anne, eldest daughter of Mrs. Ferguson, "Cluden," Brighton, and the late James Ferguson, Melbourne.

DEATHS.

BRENNAND.—February 20th, at North Sydney, Margaret Campbell (Maie) Brennand, wife of Henry J. W. Brennand, M.B., and fifth daughter of John Taylor, of Rothesay, Greenwich, aged 25 years.

CADELL.—March 4th, at St. Bernard's, Burwood, Sydney, Christian, fourth daughter of the late James John Cadell, M.D., aged 53 years.

CRABBE.—March 4th, at his residence, Chatswood, Sydney. James Brown Crabbe, M.B., Ch.M. (Edin.).

McCLELLAND.—March 16, 1905, at 1 Erskineville-road, Newtown, Sydney, Ruth Fanny Lilian, only beloved child of Dr. and Mrs. W. C. McClelland, aged two years and ten months.

ROBSON.—February 20th, at Sandringham, Victoria, Kate Isabel, wife of E. I. Robson, formerly of North Sydney, and second daughter of the late Dr. Morrison, of Melbourne, aged 38 years.

STRANG.—February 14th, at her residence, Alandale, Inverell, N.S.W., Annie, second daughter of the late David Strang, M.D., F.R.C.S.E., aged 60 years.

WREN.—March 6th, at his residence, Aratong, Wagga Wagga, N.S.W., Erasmus Wren, L.R.C.P., F.R.C.S. (Eng.), in his 90th year.

BOOKS RECEIVED.

Manual of Hygiene. For Students and Nurses. By John Glaister, M.D., D.P.H. (Camb.). 2nd edition. Edinburgh: E. & S. Livingstone. 1905. Prce, 6s net.

The Preparation and After-treatment of Section Cases. By W. J. Stewart McKay, M.B., M.Ch., B.Sc. London: Baillière, Tindall & Cox. 1905. Sydney: L. Bruck. Royal 8vo., 651 pages, 134 illustrations. Price, 15s.

Melbourne University Calendar, 1905. Melville & Mullins.

Cancer and its Treatment. The Bradshaw Lecture. By A. W. Mayo Robson, D.Sc., F.R.C.S. (Eng.). London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 3s 6d net; demy 8vo. 1905.

Lateral Curvature of the Spine and Pelvic Deviations. By R. Barwell, F.R.C.S. Sixth edition. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1905. Crown 8vo. Price, 3s net.

The Diagnosis and Modern Treatment of Pulmonary Consumption, with special reference to the early recognition and permanent arrest of the disease. By Arthur Latham, M.D. (Oxon.), F.R.C.P. (Lond.). Second edition. Demy 8vo. Price, 5s net. 1905. London: Baillière, Tindall & Cox. Sydney: L. Bruck.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS :—

Mr. L. Bruck, Sydney; Messrs. Burroughs, Wellcome & Co., Sydney; Mr. G. Dunn, South Yarra, Victoria; Dr. B. B. Ham, Brisbane; Dr. C. MacCarthy, Sydney; Mr. G. T. Taylor, Hobart; Dr. W. W. Ewbank, Perth, W.A.; Dr. Kortüm, Cooktown, Q.; Dr. W. H. Horton, Aratapu, N.Z.; Messrs. Burroughs, Wellcome & Co., London; Dr. J. H. G. Drummond, Strathalbyn, S.A.; Dr. D. Wield, Brisbane; Dr. Laurie, Melbourne; Dr. J. Ashburton Thompson, Sydney; Dr. J. B. Gunson, Adelaide; Dr. E. Ken Herring, Shepparton, Vic.

AUSTRALASIAN MEDICAL GAZETTE.

PRESIDENTIAL ADDRESS.

Delivered at the Annual Meeting of the New South Wales Branch of the British Medical Association.

By A. MacCormick, M.D. (Edin.), Hon. F.R.C.S. (Eng.), Retiring President.

I DESIRE to thank you warmly for the honour you have conferred upon me and the trust you have reposed in me by electing me as your president. This is the highest honour which the Branch can confer upon any of its members, and I highly appreciate it. I trust you will forbear with and tolerate my shortcomings. During my year of office I have been greatly dependent upon the co-operation and support of the hon. secretaries and of the assistant secretary for making my term of office an easy and a pleasant one.

This Association is now long past its first youth, and in fact is well into years, and its career may, I think, be characterised as having been highly beneficial both to its own members and to the general public. It was founded at Worcester on July 19th, 1832, and is just under three-quarters of a century old. As you may know, it was originally designated the "Provincial Medical and Surgical Association." On the memorable day of its birth, Dr. Hastings (afterwards Sir Charles Hastings) delivered an address to 50 medical practitioners, in which he pointed out the objects of the organisation, and it is remarkable how broadly its foundations were laid and how applicable they are even to our present conditions. They may be considered as coming under the following heads, viz. :—

1. The advancement of medical science.
2. The maintenance of the honour and respectability of the profession by promoting friendly intercourse and the free communication of its members.

This Provincial Medical and Surgical Association, holding annual meetings in the various centres of England, did excellent work in its earliest years, and by the year 1853, after an existence of 21 years, its membership had attained to 1853, a curious coincidence of numbers. In the following year the constitution of the Association was reformed, the salient features of the new organisation being that—

(*a*) The title was altered to that of "The British Medical Association."

(*b*) The Council was made representative, its members being elected by the Branches which had previously been in existence.

Under its broadened title and constitution the Association has marched forward, fighting the battles of the profession, raising its prestige, and extending its influence, until now it possesses a membership of 18,000, with branches throughout the British Dominions. In effect, the work of the Association may now be classified under the five heads of (*a*) Social, (*b*) Scientific, (*c*) Ethical, (*d*) Medico-Political, and (*e*) Economic.

I. SOCIAL.

Without a doubt one of the greatest factors in the success of the organisation has been the drawing together of medical men at its meetings. The consequence has been that goodfellowship and a better feeling amongst the members of the profession has been promoted, while an *esprit de corps* has been fostered, and the cohesion which has resulted has undoubtedly tended to strengthen the power of the Association and to extend the influence of the profession as a whole. In this connection I might say that in this Branch the relationship of medical men to one another is on an excellent footing. If there is professional jealousy (as why should there not be, for emulation and jealousy are not always easily separated) it is well masked, and any attempt on the part of one of its members at "crowing" over another's mistakes is looked upon, to say the least, as bad form. At the same time, of course, there is legitimate criticism and controversy, which tend towards our mutual advanceent, and on the whole subject of the relations of the members to each other, I believe, judging from what I hear from strangers, we compare very favourably with neighbouring cities. Let us hope that it may continue to promote the happiness, usefulness, and well-being of all concerned.

II. SCIENTIFIC.

This side of our work has certainly not been neglected by this Branch of the Association, as may be judged from the papers and exhibits. So far as both the medical and surgical treatment are concerned, we in New South Wales have, I think, always followed closely upon any advance which has been made during the past 20 years in the Northern Hemisphere. Generally we have followed it, but sometimes we have walked parallel with it, and I believe sometimes even we have been in advance, though in Australia so far we have made no great startling discovery in medical science. Several reasons may be advanced for this fact, which, however, is accounted for chiefly by the lack of time on the part of students, the smallness of our population, and the isolation of our scientific workers. But some amongst us have stepped out of the beaten track, and amongst those who have contributed new discoveries to medical science in Australia I might mention the Bancrofts, Anderson Stuart, and others.

I believe that at the Sydney University we were the first in the British Dominions to adopt a five years' curriculum in our medical course. Now it is the law in Great Britain and the rule everywhere. It is sometimes said of our young Australian students that their scientific training and experience cannot be equal to what is obtainable in some of the older medical schools, but I venture to say that this is not true. Their scientific training is equal to that obtained in any part of the world, and I also venture to say that after a year's residence in one of our large hospitals our young graduates are in a better position to cope with a serious emergency than their average English or Scotch cousin. It may be that they have a little too much self-confidence at first, but we all find our level after a time. With reference to the medical curriculum at our own University as a scientific training, it should be borne in mind here that this curriculum is almost exclusively the work of members of this Branch. The high standard of the entrance examination, the very complete course in physics, and the fact that there is a course in applied logic by which the student is shown how the innumerable " facts " he learns are co-related, are all satisfactory features. Then the old dismal study of materia medica has disappeared, while all that was valuable in it is retained in other courses and in the new subject of experimental pharmacology, which should lead the student to a truer notion of the action of the drugs than any mere prelection on the subject could ever do. Diseases of the mind and eye are compulsory, and two subjects must be chosen from the five following, viz., special bacteriology, special therapeutics and diseases of children, of the skin, of the ear, nose and throat. This all makes a course much more comprehensive than any with which I am acquainted, and as we were in the van before the present British curriculum was adopted, so we are again ahead now. Ethics also is included, as we shall presently see, and Dr. Fiaschi gives voluntary lectures on the history of medicine, a most important subject when one thinks that the present being the outcome of the past, to thoroughly understand the present we must not neglect a fairly comprehensive, or at all events a systematic knowledge of the past.

III. ETHICAL.

The ethical work of this Branch during the past year on several matters has absorbed some attention. I regret to say that this is a subject on which most young medical men are completely ignorant. It is a subject which is mentioned casually perhaps by some of their teachers. There is no regular instruction in ethics provided for in most of the British curricula, and most of us have sometimes no doubt done what would by some be considered unprofessional, in our pure ignorance of proper ethical rules. This is a point which should always be borne in mind in passing judgment in a case under investigation for breach of ethics. It is satisfactory to know in this connection that at the Sydney Medical School there is a lecturer on the subject of medical ethics, and no one could be better fitted for the post than Dr. P. Sydney Jones.

IV. MEDICO-POLITICAL.

The question of reciprocity of action in our relations with the medical profession in the old country is one upon which I think we should be unanimous. With a view to bringing this about, representations have been made by the Parent Society to the Colonial Office, urging the expediency of registering in Australia only those medical qualifications which are registrable in the United Kingdom. This proposal is, I think, both highly desirable and just. Our graduates are debarred from practising in other countries unless they pass examinations conducted in the languages of those countries, whereas a foreigner may come here, practically ignorant of the language, and get registration on producing a qualification which might not even procure him the right to practise in his own country. Such a position is palpably unjust to those who are properly qualified. With a view to remedying the defect in our legislation a draft bill dealing with this matter has been drawn up and forwarded to the Medical Board, with a request that the Government may take it up as a Government measure, but so far the bill has not, I believe, been presented to Parliament.

V. ECONOMIC.

There can be no doubt that the competition amongst the members of the profession is becoming daily more keen. Their numbers are increasing relatively, while preventive medicine diminishes the demand for the services of medical men. It therefore behoves us to see that the public pay a fair amount for their medical attendance, so that there may be no "sweating." The channels through which practitioners may be subjected to this process are the medical benefit societies, and the hospitals, which are liable to abuse. I know little about the former, and the best means of dealing with the trouble opens up a question in economics which it would take a George Reid or a Kingston to deal with. But I do know something about hospital abuse, and in view of the proposed large increase in hospital accommodation for Sydney this grievance is likely to be aggravated.. Without going fully into the question, I should say that the principal cause of the abuse lies in the making of a charge for admission from people who can afford to pay a little. They should only be allowed, in my opinion, to make a donation on leaving the hospital, should they choose. Hospitals are for the destitute, and in all cases they should have the first claim for consideration. In my opinion no attempt should be made to obtain payment at all from hospital patients, for should they be allowed to pay ever so little they develop a feeling of false independence. Really they are all the time in receipt of charity. Another cause of leakage in the income of general practitioners is the fact that patent medicine preparations are placed upon the market by some firms of wholesale chemists which people adopt indiscriminately for their troubles without medical advice as to the probable effects of the drugs taken. Thus, when a patient has a headache he or she rushes for a phenacetin powder, regardless, because ignorant, as to the effects in other directions. Unqualified practitioners and quacks do no harm to the profession, but of course the general public suffers, and yet for some unaccountable reason they command great sympathy from the public and Parliament. Finally, another cause of the diminished work for medical men is to be found in the advent of the trained midwifery nurse. I do not say I would prevent these persons from carrying out their business, but I often think it argues much for the doctor's self-sacrifice when I hear of him lecturing to classes and otherwise teaching women who will afterwards help to take the bread out of his children's mouths.

In concluding, I beg again to thank you for your courtesy and kindness to me during the year, and, in welcoming my successor to the chair, I may be allowed to say that I am sure that in Dr. Beeston you have chosen an energetic, able, and acceptable president.

THE MANAGEMENT OF PUBLIC HOSPITALS IN NEW ZEALAND.

By Ernest Roberton, M.D., Auckland.

Presidential Address delivered before the New Zealand Branch of the British Medical Association at the Annual Meeting held in Auckland, Feb. 28, 1905.

I HAVE, as my first duty, to express my hearty thanks to the members of the branch for the honour they have done me in electing me president. As my position is due to the fact that our present meeting is being held in Auckland, and that I am in a sense more especially the representative of the Auckland division, I take advantage of this opportunity to welcome those members of the Association who have journeyed from other parts of the colony. In a year or two—in view of past disappointments I ought, perhaps, to say in a few years—when railway communication with the outside world is a reality, we hope that the greater facility in reaching our city may increase the number of those whom the combined attractions of meeting their colleagues, and of the beauties of our locality, will bring to future annual meetings. To those who have faced the difficulties and discomforts of present-day travelling to be here to-day, I may say, on behalf of my Auckland fellow-members, that their presence is indeed a great pleasure to us, and we trust that when they return home they will carry with them pleasant memories of Auckland and of this annual meeting.

I have ventured to choose as the subject of my address "The Management of Public Hospitals in New Zealand." Recent events in the north of New Zealand have led our division to take an unusually active interest in the question of hospital management; and the recent Royal Commission of Enquiry into the affairs of the Auckland Hospital has been the means of raising many questions in that connection which can be settled only in such a way as will affect also the hospitals of other districts. The interests of our profession are so intimately connected with those of the hospitals and the status of the profession, and the interests of its individual members may be so readily affected by the action of the State in its methods and aims in maintaining public hospitals, that the subject is one of the greatest importance to us. Our local division, on behalf of the profession in this district, has for long urged the necessity of some alteration in the law under which the managers of hospitals are appointed, from a conviction that the Hospital Boards, as at present constituted, lack elements which are necessary to real efficiency, and which, if present, would lessen the oft-recurring disputes and scandals which have arisen from one end of the colony to the other.

If we consider the causes of these troubles —the extravagant expenditure, the erection of unsuitable buildings, the appointment of an unworkable or unsuitable staff, the interference with medical or nursing arrangements, unnecessary and inconsistent changes in methods of management, the catering in the special interests of one section of the community, the pandering to those who have political influence—we find that behind all these lies the unsuitability of the Boards through want of expert knowledge or of other special qualifications for the work which they have to perform. The best proof that such special qualifications are wanting, is to be found in the fact that where, as in the smaller hospitals, the work of management is comparatively simple, troubles have been few. No special demands are made either on the intelligence or knowledge of the committees, and the Boards are thus equal to their work. When, however, as in the larger towns, the hospitals are institutions of a decidedly complex nature, similar Boards are found wanting, and the attempts to manage through them have led to frequent trouble. It was not realised by those who arranged the constitution of the present Boards that in the larger hospitals, where, for proper administration, it is necessary to have a large staff of paid and honorary officials and servants, the managers should be able to rely on special technical knowledge possessed by some of their members, and should, moreover, have some special aptitude for controlling conflicting interests. In some instances those in whose hands the law has placed the management have, with experience, shown themselves able to acknowledge this defect in their constitution, and, when necessary, have acted consistently in wise dependence on well-chosen, expert advice. Unfortunately, the members of local bodies have a tendency to act on their own self-sufficiency, and the majority of members of the Hospital Boards are representatives of small local bodies elected by their fellows. Hitherto the choice of men has been too limited, and some classification of hospitals is needed, so that, as the organisation of any institution becomes more complex—as it grows with the population of its neighbourhood—the difficulties of management may be met by a Board proportionately better equipped in knowledge and experience for the special work required of it.

The public hospitals in New Zealand are State institutions, supported by compulsory rating and taxation, and, to some extent, by endowment, voluntary contributions, and fees paid by patients. In a colony like ours, which prides itself on being well to the front in all questions affecting the welfare of its people, we might naturally expect to find in connection with the management of public institutions devoted to the care of the sick sufficient legislation enacted with the aim of promoting efficiency of management. Whatever there is of the kind is rudimentary, viz., the appointment of inspectors who may report to the Government, but who have no power of controlling the Boards or their employees.

The hospitals are managed under "The Hospitals and Charitable Institutions Act, 1885," and its amendment of the following year, 1886. These Acts were measures designed almost entirely to provide funds for the maintenance of hospitals. In reading the debates on these bills, as reported in Hansard, one fails to find any reference which implies that the question of efficiency of management, apart from economy, was considered by those who promoted them. Reference was made in debate to the absence of any provision of the kind, and alterations in that direction suggested, but not adopted.

The causes and intentions of the Acts I have mentioned in great measure explain the present condition of hospital management. Originally, the hospitals in New Zealand were local institutions, and in the days of Provincial Government, ended in 1875, they were maintained in various ways, some by endowment, others by voluntary contributions, with or without aid from the Provincial Councils. The managing bodies were local Boards, either elected by subscribers or nominated by the public bodies, through whom assistance was given by the ratepayers. There was no uniformity in the methods of maintenance or management. When the Provincial Councils were abolished, the General Government found itself the last appeal of all impecunious and embarrassed bodies concerned in the management of charitable institutions. Demands were made for financial aid such as could not in many instances be well refused, but which were still a constant source of irritation to those in charge of the Treasury. The demands naturally increased as grants made in any one direction impressed other committees with the comparative ease of an appeal to Government in contradistinction to the difficulty of procuring funds through local voluntary subscriptions. So many local interests were involved that the task of legislating to provide adequately, and yet economically, for hospital maintenance was not easy. A bill brought forward in 1879 was not persevered with, and not until 1885 was any other attempt made to deal with the question. In that year a bill was introduced by Sir Julius Vogel as a member of the Stout-Vogel Ministry. This bill is the foundation of the present method of dealing with the hospitals of the colony. There are certain points in connection with it which are of special interest at the present juncture. In moving its second reading, Sir Julius Vogel gave as his reasons for introducing it—" the necessity of settling difficulties and incongruities due to varying systems of dealing with the question of hospital and charitable aid, and to different usages in provincial institutions, and the consequent excessive demands on the Government without any of those checks which existed in provincial days." He laid down as three essential conditions to be fulfilled in the preparation of any measure of dealing with the question—(*a*) that the committees of management should be essentially local, and amenable to public opinion by being made elective; (*b*) that the expense should be somewhat localised, " although it would be impossible to localise all the expenditure by saying that only the district in which an institution was situated should be at the sole cost of maintaining the institution, because there are numerous cases in which institutions may be situated in one district, and yet serve the purposes of several adjoining or even remote districts ; " (*c*) that the Government, out of consolidated revenue, should meet a reasonable proportion of the cost of the institutions, but should not be the last resort of each committee in financial difficulty.

At the time of these proposals the Government was paying out for hospital and charitable aid some £80,000 per annum, while the public contributed otherwise only £20,000. The primary object of the Government was to cast on the local bodies responsibility for the major part of the amount which the hospitals and charitable aid cost, and thus reduce what came out of consolidated revenue. Two-thirds of the whole was to be provided locally by voluntary contribution, or by rates, according to the necessities of each district, and a subsidy of 10s to the £ was to be the contribution of the General Government. In this way the cost to the General Government was to be reduced from £88,000 to £36,000. Local taxation was thus materially increased, the only chance of lessening it being by an increase of voluntary contributions. As a set-off to this, the local bodies were to elect the District Boards of Management, and so control the expenditure, the exception being in the cases of what were to be known as " separate institutions." It was considered an encouragement to voluntary contributors that when £100 was voluntarily subscribed by 100 people in sums of not less than 5s., these subscribers should be entitled to be incorporated as a " separate institution " and have control of the management. Before the Act passed, however, the local bodies were given fractional representation on the committees of these separate institutions, and the amending Act of 1886 reversed the position by giving the local bodies the right of electing the majority of members, and voluntary subscribers a smaller number according to the amount of their contributions. In speaking in support of the bill of 1885, Sir Julius Vogel said: " The object we desire to compass by the bill is, as far as I can see, identical with the idea which has been set before us by nearly every speaker. That idea is to avoid as far as possible the having to deal with these institutions by means of local rates, and to encourage as much as possible voluntary contributions. The Government believe that nearly all institutions which it is desirable to continue to maintain will, within a reasonable period, be incorporated into separate institutions, and the bulk of those which are not incorporated by the local residents into separate institutions will be more or less institutions which it is not desirable to keep in existence. We therefore consider that within a reasonable period, say, a year or two, or more, all those institutions which it is desirable should survive will be in the hands of Boards of Trustees as separate institutions."

In 1886, to still further encourage voluntary contribution, the amendments provided that 24s should be given for each pound subscribed. At the same time a subsidy was provided for to equal the amount provided by local rates. After a lapse of twenty years we are able to look back and see how absolutely the idea of supporting the hospitals by voluntary contribution has not been realised. The year previous to the Act (1884) the amount of voluntary contributions was about one-quarter the amount contributed from public funds. In 1903-04 they were about one-fourteenth. Those who might gladly contribute to the relief of the sick poor in a true spirit of charity are naturally deterred from giving to the hospitals for which they are already compulsory rated when they realise that what they give, unless marked for some special purpose, does not actually increase the advantages of the sick poor, but merely relieves the liability of the taxpayer by the amount of the donation.

To us, however, for the moment, the chief interest in the measures taken with the view of attracting voluntary contributions lies—first in the definite recognition of the hospitals as charitable institutions for the sick poor, and, secondly, in the expectation that the hospitals would rank as separate institutions, and therefore be under the control of managers distinct from those administering the other departments of charitable aid. The Acts of 1885-86 were not party measures. Both sides of the House seemed to have wished for a solution of the then pressing financial difficulty in connection with the hospitals by an apportionment of the expenses of management fair to all parts of the colony. In this, it seems to me, the Acts have been a success. Moreover, some check on the expenditure was secured by making the local rates responsible, and by giving representatives of the local bodies full control of all except incorporated institutions. The idea that committees of management should be amenable to public opinion by being elective was, unfortunately, lost sight of, for they have been elective only in so indirect a way that it is hard to see what influence public opinion has had in the elections.

The Acts of 1885-86 were tentative measures, and those introducing them acknowledged this freely, anticipating that experience would in a year or two or more lead to rearrangement. The wonder is that, after 19 years, during which the deficiencies of the Acts have been so apparent, we have not something more satisfactory. Recent events have clearly shown the possibilities for mismanagement which are in uncontrolled boards elected under the Acts. Since the Acts have fulfilled the main purpose of providing for the financial support of the hospitals, it may well be urged that further steps should now be taken to provide for more efficient management, and thus supply a desideratum of national importance.

A report is yearly presented to Parliament by the Inspector-General of Hospitals. In these reports the necessity for compelling better management has been frequently pointed out, and the generally satisfactory opinion expressed regarding the hospitals as a whole has been much modified by the oft-recurring mention of circumstances which under the present law militate against a better condition of affairs. It is remarkable that one individual is regarded as the official head of both the asylums and the hospitals, and that we find the asylum service in its discipline and methods holding the entire confidence of our profession, and one of which any country might be proud, while the management of the hospitals affords to the Inspector-General himself, to the medical profession, and to the public, a constant source of complaint in one form or another. The reason of this anomaly is easily found in the different powers assigned in the two cases to the central authority—in the case of the asylums the power of organisation and control, and of consistent management; in the case of the hospitals merely the responsibility of inspection, and the privilege of reporting, while local boards, practically uncontrolled, may or may not take the advice given, and are at liberty to pursue any kind of makeshift policy which their frequently-changing *personnel* may encourage.

The hospitals of the colony present one feature which is in itself a strong argument for some central authority (individual or committee) with a measure of actual control. The steady and rapid increase of population implies a corresponding increase in the number of hospitals, and at the same time a corresponding development of those already in existence. The cottage hospital of to-day, with its six or seven inmates, will in 10 or 20 years develop into a hospital with 20 or 40 beds; that which now makes provision for 50 patients must ere long provide for 100. The increasing numbers mean larger buildings, larger and more complex staffs, different classification of patients, a necessity for training nurses, and for working with an honorary staff. If the management of hospitals thus developing is left entirely in the hands of local boards, each of these boards must of necessity buy its experience, and do this at the expense of the pockets of the taxpayer, and of increased discomfort and suffering to the sick. To give an instance of waste in only one direction, I quote from the last report of the Inspector-General:—"Ratepayers would be astonished if they realised the amount of money simply thrown away in defective material and workmanship, as well as the faults of construction that necessitate alteration when the building is supposed to be completed in order to comply with laws of sanitation." There are few of us who could not tell of squandered money and wasted energy for which well-meaning but self-sufficient local boards are responsible, through failing to realise that they are much less likely to solve the problems presented by an expanding hospital by means of petty and often noisy experimentation than by quietly following where the experience of others has shown the better way. To be quite fair, should one not add that, to a less extent, members of honorary staffs have at times shown similar weakness, necessitating the same central control? It is remarkable that ere this some means has not been found to avoid the recurring difficulty. Considering that the hospitals are all practically State-supported institutions, that their objects are the same, and the general surroundings the same, we might have expected that the combined experience of their managers might have evolved some uniform satisfactory system of management. Entirely local government, as applied to our hospitals, has not been a success in this respect.

I submit that a central authority should, within limits, control the erection of buildings, and lay down systems of internal management according to a classification of hospitals based on size and other circumstances. The conditions surrounding hospitals of similar size in New Zealand are much the same, except in Dunedin, where there is a Medical School, and uniform methods of administration would obviate much of the trouble and friction which is so liable to occur. It would make possible the training and promotion of efficient officials. It would enable the choice of persons of tried efficiency to fill posts requiring special qualifications. The hospital service would thus attract a better class of individual, the *personnel* would be stronger all round, and the sick, the ratepayer, and the medical profession would reap a very material advantage. Above all, it would prevent the proposal and carrying out of changes merely to satisfy the whim of the faddist, or the personal advantage of the self-seeker, whether lay or medical.

A central control of the nature above indicated would not remove the necessity or desirability for local boards of management; it would certainly limit their power, and would lessen the time occupied by their work. At present the time required to be devoted to the business of some combined Hospital and Charitable Aid Boards is preposterous. A chairman and an ex-chairman of the Auckland Board, at the recent inquiry by Royal Commission, stated that the chairman was occupied three days a week in the work of the board, and each of the members at least one whole day per week. Such a demand on the time of members must deter many otherwise desirable men from offering their services, and reduces still further the already small list of eligible persons which the election by local bodies affords. It is to be hoped, however, that any fresh legislation may provide for the separation of the management of the hospitals from that of charitable aid in its other forms, as intended by the promoters of the Act of 1885, and thus provide also for the reconstruction of the hospital boards.

Apart from the excessive demand upon the time of members of combined boards, there are cogent reasons for this reconstruction. The work of managing a hospital is essentially different from that of arranging for the relief of the poor apart from sickness. Different men are attracted by the two kinds of work, and different qualifications are required. Successful hospital management must be dominated by the necessities of medical and surgical treatment, and thus by the opinions and practices of those members of our profession throughout the world engaged in hospital work, and part of the boards should therefore be men who are able to understand and sympathise, even if not entirely agreeing, with the aspirations and ideals of the members of the medical profession. As at present constituted, the hospital boards are not in sympathy with the medical staffs of the larger hospitals, nor the medical staffs with the board. There is a tendency to mutual distrust, which is a ready cause of actual friction. I do not suggest that local bodies should not have a large representation on hospital committees. They supply nearly half the cost, and it is only just that they should have a voice in the disposal of the funds they provide, and apparently the presence of their representatives is a check on an increase of local rates by a too lavish expenditure. The public, however, through the General Government, supply rather more than half the funds, and are, with equal justice, entitled to representation and control, and I believe that members of hospital boards representing the general public, whether elected directly by the people or nominated by the Government, would work more in harmony with the medical staffs, because they would be selected either for the special interest they show in the hospital, or for some special qualification for their work. They would number among them a far greater proportion of members of the other liberal professions, and more of those whose public interests are not confined to parochial politics.

Another element still wanting in our New Zealand boards, although now recognised as essential to good hospital management in other parts of the world, is representation of the medical profession. This is an entirely different thing from medical members elected by the laity, who, as likely as not, might be selected for reasons altogether apart from technical qualifications. We have in the medical profession a body of men whose professional training and whose life work fits them as a whole more specially than any other section of the community for understanding the necessities and details of hospital work, and for appreciating the capability of any of their fellows for work either on the management or on the staff. In any district also none know better than the medical men the needs and difficulties of those seeking hospital relief. On such grounds as these it is that the Government have already been approached in regard to the Auckland Hospital to provide for representation on the Board of the registered medical practitioner of the district.

A special claim to representation on the boards is that of the members of the honorary staffs. The local bodies are, and the General Government should be, represented on account of their contributions to the funds. The members of honorary staffs are likewise entitled to representation, as giving support of a very large if indefinite value in the skill which is the essential thing sought at any hospital, and without which hospitals cannot exist. Apart from this claim on the score of justice, it is now an almost universally recognised axiom that hospital work is best "when the medical and lay authorities freely interchange their views and strive to work in harmony towards a common end." To obtain this condition, the direct representation of the honorary staffs on managing boards is essential. Any intermediary between staff and board leads to the creation of unnecessary difficulties, and often to misrepresentation and misunderstanding.

The question has of late years been freely debated in Britain, and appears to have been finally settled, with regard, at any rate, to its general aspects, since the dispute between staff and board of the National Hospital for the Paralysed in Queen's Square, London, was so freely ventilated in the medical and lay press. The interest raised was such, and the principle at stake was considered so important, that a letter appeared in *The Times* signed by some 60 of the senior physicians and surgeons of the London hospitals, at whose head was Lord Lister. This letter affirmed that "from long experience of hospital administration they desired to record their firm conviction that the demand of the staff for representation on the board of the hospital was a perfectly reasonable one, and one which in other hospitals has conduced to harmonious working and efficient administration." Later, a committee of investigation was with great care appointed jointly by the board and staff of the hospital referred to. It consisted of eminent professional and business men, and the verdict given was that the granting of direct representation to the staff on the board was necessary to bring the hospital into line with the majority of similar institutions, and that such representation would, beyond all other methods, secure the best and most satisfactory mode of intercommunication between medical staff and board of management, and would be to the great and permanent benefit of the hospital. Opposition to the representation of the honorary staffs on the boards has always been largely founded on prejudice or jealousy, and in this now historic struggle at the Queen's Square Hospital the argument was actually put forward that two representatives of the honorary staff would have so much more knowledge of affairs than the other dozen of members, that all power of management was bound to fall into their hands. Could a stronger argument than that of special knowledge have been used on the other side ? The staff representatives give to the board a better grasp of the actual conditions and necessities of the hospitals, and provide guidance and advice from those who know best towards efficiency in the care and treatment of the patients. Whether a hospital may be maintained by voluntary contributions or by the State, the desirability of such guidance and advice remains the same.

At the recent hospital inquiry in Auckland the suggestion was made that our large hospitals should be managed without honorary staffs—that all the medical officers should be paid employees. The idea underlying this suggestion was that the surgeons and physicians would thus be subservient to the board. Since such a change has been proposed, it may be well to consider what the existence of an honorary staff implies. To have an honorary staff attached to the hospital of any town is a privilege to the community as well as to the membersof the honorary staff themselves. Indeed, to the members of the honorary staff it is an advantage only indirectly, and to the extent that they value the opportunity of rendering themselves the more capable of serving the community. The saving in salaries which the work of an honorary staff allows is but a small item compared to the saving in life and suffering which the increased skill and experience obtained in the wards of a properly-equipped and well-managed hospital insures not only to the hospital itself, but in the private work of those with such experience. To abolish the honorary staff in any town would be to deprive the people of the best means of maintaining a capable medical profession in their midst, and the loss would be to those who, rich or poor, might require skilled medical or surgical assistance.

There remains one other point in connection with the boards of management which I wish to mention, namely, the length of time that a member holds office. Under the present Act the election of members is annual. In practice, many members hold office for only one year, others are re-elected during long periods—there is no security of office. The tendency of this annual election is toward frequent changes of policy, and, moreover, it must tend to lessen the interest of members in their hospital work. With a frequently-altering board it is difficult to maintain a consistent policy, and it is not unusual to find boards either declining to make changes which they acknowledge are essential, or, on the other hand, hurrying through some doubtfully necessary measures on the ground that in a month or two they will be replaced by a new board. In connection with other public bodies, it has been found a distinct advantage for members to hold office for three years, a third of the members retiring each year, and being eligible for re-election. In this way a continuous board and a consistent policy is secured.

A further question I desire to notice—one that is yearly becoming of more importance to our profession—is the test of eligibility for admission to treatment. In most countries public hospitals are regarded as purely charitable institutions, and they are open to those only whose means are insufficient to enable them to secure proper care and treatment elsewhere. This principle was clearly recognised by the framers of the Acts of 1885-86, for, besides classing the hospitals with other charitable institutions, it was the definite intention to encourage their maintenance through voluntary contribution, and, failing this, to throw the main burden of expense on local rates. Funds, apart from voluntary contributions, were to be obtained from the same sources as those distributed in outdoor relief, and where separate institutions did not exist the same boards were to manage both hospitals and other charitable aid. In all new countries, however, conditions are found, and must be acknowledged, which do not exist in older lands. The population is often small and scattered, and facilities for relief in serious sickness or injury would not exist but that the State has established hospitals and allowed the privilege of admission to all, irrespective of their means, provided that their medical necessities are sufficient. The State pays for the maintenance of the hospitals, and for the medical services rendered, and recovers from the patients such amounts as may be determined by law. This system obtains more or less in all colonies, and certainly in New Zealand has, in outlying districts, proved a great boon to settlers, and must continue where the population is small and scattered. The fault is that well-to-do patients have not paid a fair proportion of the expenses incurred, and have received treatment at the cost of the taxpayer. With the advent of larger population and greater facilities for medical treatment, the necessity for State aid, except for the poor, is removed. It is, however, difficult to break the custom of looking to the hospitals for almost gratuitous assistance. This custom has led a large proportion of settlers in some districts to regard State assistance in serious sickness as their right. The only argument one hears in support of this contention is that as all members of the community pay taxes for the support of the hospitals, so all should be entitled to their benefits. Is this assumption correct ? Are taxes paid merely for the support of the hospitals, or for the support of the sick poor, who are obliged to seek assistance there ? If it is claimed that the taxes are to support the hospitals, and not specially the sick poor, then why not apply the same line of reasoning to outdoor relief, and to the refuges for the aged, and admit that every taxpayer has a right to receive out-patient treatment or rations independent of his means, or to divest himself of the responsibility of caring for his aged parents by dumping them down at the doors of the Costley Home or other such institutions? Local influence is difficult for local boards to resist, especially where the resulting expense is in part borne by the General Government. The consequence is that in some districts the hospital, with the help of its Government subsidy, works in declared opposition to the outside local practitioners, and very often their already difficult struggle to earn a competence is materially intensified. In one hospital district in the north of Auckland there is a hospital with an average of about six in-patients, which is made the centre of a scheme to provide cheap advice and treatment for the people of a large district. The medical superintendent is asked to work on terms which bear no proportion to the amount of work done, and under conditions which are not only such that any self-respecting man must resent, but such as, in Britain at any rate, would render any medical practitioner accepting them liable to have his name erased from the Medical Register on account of infamous conduct in a professional respect. If the custom of giving medical assistance indiscriminately to all is permitted to hospital boards without fair payment according to means, the principle is established that the taxpayer is liable for the relief of all suffering from injury or disease. It follows as a corollary that the taxpayer should therefore be responsible for the fair remuneration of those employed to give this medical assistance. Until our profession is thus made a State department, it is obviously unfair both to the taxpayer and to the members of the profession that any of the public hospitals should afford treatment to the well-to-do where facilities exist for obtaining it otherwise, and where these facilities do not exist treatment should not be given them without further payment than what is little more than the actual cost of their board and lodging. Where, in the large centres of population, the hospital authorities take advantage of the gratuitous services of an honorary staff, the injustice to the profession of not restricting right of admission to the sick poor is all the greater, and the effect of aiding in the pauperisation of the community is none the less deplorable. We cannot deny that there are some who seek hospital treatment in the sincere belief that the State should undertake all medical relief. We may reasonably ask such whether, until the State itself adopts this principle, they are justified in putting an extra burden on their fellow-citizens or in accepting gratuitous services, which are given by medical men on the understanding that they are for those who are financially unable to assist themselves. As for the other, the larger class of well-to-do who take advantage of public hospitals merely to save their pocket, its members belong more or less also to the class of the " mean " man—the man who has no idea of honour sufficient to ensure fair dealing with others. For such the only remedy is legal compulsion to enforce adequate payment, and to attain this end there seems nothing more needed than to enforce clause 71 of the Act of 1885, by which each patient in the receipt of relief shall be liable to contribute "a reasonable sum according to his means." The custom of hospital boards hitherto to make the average cost of each patient per week the maximum sum charged to any patient for the same period independent of special services rendered, and of special expenses incurred by extra nursing or material, and with no charge for the services of the honorary physician or surgeon, has been a direct attraction to the well-to-do patient. If the opinion of Judge Ward is correct, that in doing this the boards have not followed the Act, and if the words, "a reasonable sum according to his means," are to be interpreted in their ordinary sense, nothing could better serve the purpose than their strict enforcement.

The objection is raised that such a proceeding would render necessary an invidious inquiry into the private affairs of patients. The State already insists on such inquiry in connection with the income tax, in regard to the applicants for old age pensions, and even regarding the means of parents of children who have the honour of winning national scholarships. Certainly the principle already applies to applicants for outdoor relief, so that no innovation would be involved by its adoption. Poverty is neither a disgrace nor a crime, and the State is justified in protecting itself and others against the selfish meanness of well-to-do patients in the public hospitals. It is also the duty of those occupying positions on the honorary staffs to see that their services, given freely to the poor, are not abused to the disadvantage of their less fortunate fellow practitioners, and to the pauperisation of those whom they permit to wrongfully avail themselves of their gratuitous help.

I believe that what I have said regarding present deficiencies in the management of our hospitals represents the opinion of our profession throughout the colony. My suggestions for reform are made in the hope that greater efficiency will be attained by action on such lines, or in some better way. I have refrained from going into any detail of internal management. To enter into that would be to open too wide a field for discussion here. In view of the fact that it is customary to honour the president by not discussing his address, I do not feel justified in entering on such debateable ground.

In asking that the opinion of the medical profession on hospital management shall be considered, we must remember that others also must have a voice in the matter. As I have already said, the essential purpose of hospitals is the provision of medical and surgical skill, and hospital administration must be dominated by considerations on which only trained physicians and surgeons are capable of offering a trustworthy opinion. There are, however, other considerations, especially those of a financial nature, which have a modifying influence. It is the duty of each member of our profession in New Zealand to strive for what he knows to be to the advantage of our country, and in doing so to resist whatever is contrary to the honour and welfare of his profession. We must remember, too, that self-sacrifice in regard to individual and local interests must be called for in some cases, whatever reform is effected. If we, as a profession, are sincere, and united in demanding efficiency in hospital management, the good sense of the people of the colony, and the Government which represents them, will assuredly enable its attainment.

SHORT NOTES ON THREE INTERESTING OVARIAN TUMOURS.

By **J. A. G. Hamilton, M.B. et L. Mid. (Dub.), L.R.C.S. (Edin.), Adelaide.**

ALTHOUGH ovarian tumours are common enough in gynæcological practice, the three cases I intend reading to-night present, I think, points of some interest.

CASE I.

A.C., *æt.* 11 years. Admitted to Adelaide Hospital, January 26th, 1905.

History.—Last June noticed a tumour about size of hen's egg in right iliac region, it was freely movable; patient herself could move it across to left iliac region and up to infra-sternal region. The tumour was at times painful, it increased rapidly, and in September was fixed in middle of abdomen. Patient has never menstruated on previous illness. In September she went to Burra Hospital, where Dr. Sangster made an exploratory incision. A small cut was made into the tumour, and as it seemed solid the abdomen was closed again, under the impression it was sarcomatous. In December, Dr. Sangster wrote to me about her, but I did not see her until I returned from my holiday in the end of January.

On Examination.—A small scar in lower part of abdomen, a round dome shaped prominent tumour occupied lower part of abdomen, extending from pubes to umbilicus. It was tender on pressure, giving an elastic sensation, except just to the left side of the upper limit, where it was firm and hard. Dull on percussion under ether. P.V. examination made. No definite cervix was felt, only a small pimple feel against posterior wall of vagina, which might represent the os. The anterior part of vagina was filled with a bulging elastic mass; on each side of this was felt a well defined bony ridge with sharp edges, giving very much the sensation of the anterior fontanelle and widely separated sutures in an infant's head. The mass filled the pelvis and was slightly fixed. On account of early history of tumour commencing in right side and being freely movable at first, and the bony mass felt per vagina, it was diagnosed as a dermoid tumour of right ovary.

February 2nd, 1905—*Operation.*—Incision made in median line extending from pubes to umbilicus, a large smooth walled tumour presented, freely movable in abdomen and springing from right ovary. There were some omental adhesions to the cut in front of tumour made at former operation; the front of tumour was also adherent to old scar. On the right side the appendix was adherent to the tumour by its mesentery. The tumour was removed entire without emptying its contents, ligatured off. As the appendix was considerably enlarged and thickened it was also removed. The uterus was small and rudimentary. The left ovary was normal. The abdominal wall was closed in layers. The little patient stood the operation well, and made a good recovery. Although dermoid tumour was known to occur at all ages, from infancy to extreme senility, they are very uncommon before menstrual life, and this is the first case I have met with in one so young.

CASE II.

Mrs. A., *æt.* 55 years. Admitted to Adelaide Hospital in October, 1904.

History.—Menopause five years ago. No children. No miscarriages. About six years ago noticed an enlargement of abdomen, which has gradually increased. Not much pain at first, but lately good deal of pain in right side and in lumbar region. Has lost flesh rapidly in last few months.

On Examination.—Abdomen very prominent and filled from pubes to ensiform cartilage with a cystic tumour extending into both flanks. Dull on percussion all over. The tumour was elastic, but here and there hard masses were felt. An operation was advised, but her friends unfortunately persuaded her to try the "faith cure." The advisability of having this large tumour removed and the dangers of delay were forcibly pointed out to the patient and her husband, but they declined the operation. In January, 1905, the patient returned to the hospital, having found the "faith cure" a failure. She had decidedly lost strength and flesh since she left the hospital; the abdomen was much the same as before, except to the right side midway between umbilicus and ant. sup. spine there was a specially hard prominent rounded mass about the size of a closed fist. Patient was willing to have tumour removed.

January 17th, 1905. — *Operation.* — Abdomen opened. Large tumour presented. Tate's large trochar was plunged into most prominent part. Some semi-solid pultaceous matter escaped. As it did not empty quickly the tumour was drawn up in the wound. The abdominal cavity was closed off with large moist gauze pads, and a large incision made into the tumour. A quantity of thick pultaceous matter and bunches of black hair were removed. It contained 15 pints of semi-fluid material. After the tumour was emptied it was easily pulled out of abdomen and ligatured off. It sprang from left ovary. The left tube was stretched across cyst. There were not many adhesions, except on right side, where a second tumour, about the size of a closed fist, with a narrow neck springing from the main mass, was adherent to peritoneum. On trying to separate this off, it was found to have infiltrated the abdominal wall, and easily broke away, leaving an excravated torn surface, with friable edges; bimanually extensive infiltration was felt extending over a large area of right side of abdominal wall; the torn surface where this adherent secondary tumour broke away presented a characteristic malignant appearance. There was pultaceous matter in this smaller cyst, same as that contained in main tumour. A scraping from this excravation in the abdominal wall was taken for microscopic examination. The peritoneum was closed over this raw excravation in the inner abdominal wall, and an opening made in outer abdominal wall through this mass of infiltration for drainage, and a gauze drain inserted. The median incision healed well. The opening in right side keeps discharging sero-pus and necrotic tissue. The infiltration in abdominal wall has considerably increased; the patient was able to return to her home, but she is steadily losing ground. Dr. Mainwaring kindly examined the specimens for me and declared it to be carcinoma. There are two points of interest about this tumour—(1) its unusual size, (2) the malignant degeneration. Dermoids cysts of the ovary do not as a rule grow to the great size that glandular cysts do. Eight pints is usually about the maximum amount of fluid they contain, and they rarely reach a size greater than a large cocoanut. Malignant degeneration may occur in any form of ovarian tumour. It seems to be most frequent in the papillomatous tumours next in the dermoid, and less frequent in the glandular cysts, but fortunately it is not a common accident to an ovarian cyst, but as it may occur it shows the importance of removing an ovarian tumour as soon as it is diagnosed. I am inclined to think that in this case the malignant degeneration took place between her first and second visit to the hospital, as this prominent mass in the right side was not present at the first examination in October, nor was there any infiltration of the abdominal wall. Had it not been for the injudicious advice of the "Faith Healers" she might have made a good recovery.

CASE III.

Miss G., *æt.* 48 years. About twelve years ago noticed some enlargement of abdomen, this has gradually increased, but last two years it has increased rapidly. General health good; no pain; has lost flesh considerably lately. "Facies ovariana" well marked. No swelling of legs. Menses always regular till four years ago, when they commenced to get irregular; 18 months ago ceased altogether.

February 14*th*, 1905.—*Operation.*—On opening abdomen tumour was found adherent to front wall of abdomen by light adhesions; its upper surface was adherent to liver by fairly strong bands. Tapped with Tate's large trochar, and six gallons of dark blood stained fluid removed. It sprung from the left ovary, and was unilocular, but there was a smaller cyst on the upper surface about the size of a large orange. This communicated with the main cyst by a narrow neck; probably in earlier life it had been a separate cyst. The patient has made an uneventful recovery, her only trouble being the superabundance of skin in the now collapsed and relaxed abdominal wall.

Ovarian tumours of this size were commonly enough seen 20 or 30 years ago, but in these days of advanced surgery it is rare to meet with one of such gigantic proportions that has so long escaped the knife. Although this tumour weighed between 65 and 70 lbs. this lady went about her duties daily as a music teacher, frequently walking some miles in the day. One might imagine she lived in some distant part of the country, but on the contrary, she lived in the city, and was about every day attending to her duties. She had been under Dr. Henry's care for some years; he had frequently advised her to have the tumour removed, but she steadily refused operation. Her sister had a tumour of the same sort removed some years ago, with, unfortunately, a fatal result. This preyed upon her mind, and was the chief cause of her disinclination for operative treatment. It is a remarkable fact that there was so little pain and inconvenience felt from the presence of this enormous tumour, and the abdominal contents must have been considerably hampered for room, and one would have imagined those strong bands adherent to the liver and gall-bladder would have set up some symptoms.

THE SANATORIUM TREATMENT OF PULMONARY PHTHISIS.

By R. E. Weigall, M.B. (Melb.), Elsternwick, Vic.

IN the *B.M.J.*, Jan. 14th, 1905, Dr. Manson, writes an article entitled "The Sanatorium Treatment of Phthisis—Is it Worth While?" He explains that his reason for writing is that he considers it the duty of every practitioner to be able to advise on such an important matter, and that he should have all the information at his fingers' ends referring to the country in which he lives. He gives valuable statistics referring to Scotland and England, and I have endeavoured to get what information I can referring to Victoria.

In a mild and genial climate like this we should get results equal to, if not better, than any part of the world, and I feel sure that if the sanatorium treatment in its proper sense was given a fair test it would astonish us in its results. The effect produced upon the individual by the routine, regulation, and peace of the surroundings alone improves the nervous tone of the patient and the capacity for resisting disease. We know how distinctly tubercle is a disease that "kicks a man when he is down," and that it is only by helping him to get up and kick out in resistance that he has any chance of beating his enemy. We all know of cases where it is not altogether poverty that renders suitable treatment impossible, but the individual's anxiety to keep going in the interests of others, and the desire to save trouble to others, induces him to go on wrapping himself up in heavy clothing, sleeping in a stifling atmosphere, and trying to subsist on three meals a day of very ordinary food. All this time he is suffering from an evening pyrexia, loss of weight, and a constant nervous anxiety, getting up day after day feeling weary, apathetic, and unfit for his day's work, which he begins by expectorating his nightly accumulation of sputa in various suitable places for general dissemination. He frequently avoids washing, and retains the same underclothing that he slept in. Is this the way to improve? If by chance he is persuaded to place himself in a sanatorium, what is the result? All unnecessary clothing is removed. It is not uncommon to find a man wearing seven or eight shirts. He has a cold sponge every morning and a warm to hot bath once a week. Absolute rest is insisted upon for all patients with a temperature exceeding 100°. At 7.30 a.m. a cup of tea, with bread and butter, is offered all patients. At 9 a.m. breakfast (bread and milk, porridge, chops, steak, fish, bacon, milk, cocoa, tea, marmalade and butter. 11 a.m., lunch (glass of milk with or without an egg, or a cup of broth). 1.30, dinner (soup, joint, fish or poultry, vegetables, puddings, and fruit). 5.30 p.m., tea (hot or cold meat, eggs, fish, jams, fruits, etc.). 8.30, glass of milk, with or without an egg, and biscuits. Patients can always have milk at any time during the night. At 10 p.m. the lights are out and all patients are in their beds in tents with both ends entirely open for a complete draught of air. And so the days go on. No worry, no struggle, everything carried on in perfect order, and the scene is changed.

The results for Victoria are good, but are, to a certain extent, impaired by the difficulty in inducing patients to undergo treatment before the disease has made great advance. The statistics given by Dr. Manson for Nottinghamshire, England, show:—Disease arrested, 20 per cent.; much improved, 81 per cent.; no improvement or died, 19 per cent. Edinburgh: 95 patients; well and at work, 26; worse, 9; died, 25; lost sight of, 34. The Victorian results are as follow:—For the year terminating June 30th, 1904, which had a cold and changeable winter, the wettest for years: 148 patients; cured or with disease so arrested as to be able to work, 80; 20 partially cured; 30 incurable; and 3 died; 109 cases gained weight. These results speak for themselves, and do credit to the Victorian sanatoria. But apart from the actual results to the patients themselves, think of the benefit to the community at large. Each of these individuals sent back to the world has learnt to take the necessary precaution to protect others from contamination. He is imbued with the principles not only of self-protection but protection of the community, and disseminates his knowledge. Instead of going about a trouble to himself and a danger to others, he becomes a useful member of society, and assists in the prevention of the spread of tubercle.

(Read before the Victorian Branch of the British Medical Association.)

A CASE OF NUTMEG POISONING.

By **Henry Laurie, M.D., Melbourne, Victoria.**

At 3.30 a.m. on April 9th, 1904, I was called up by a gentleman who wished me to come at once to see his wife, whom he thought to be dying. His account was that she had gone to bed at 10 o'clock in her usual state of health, and that about three o'clock he had been awakened by her restlessness, and found her throwing her arms about and muttering incoherently. She did not answer him rationally when spoken to. So far as he knew she had not eaten anything that he had not shared in. They had not had meat for supper.

I found the patient almost unconscious, with shallow, occasionally sighing respiration, with an occasional restless movement of the arms. Her skin was cold and moist, pupils dilated, reacting sluggishly to light, no adventitious odour of the breath; temperature in the axilla 96·8°, pulse 156, feeble with occasional slight irregularity. I at once gave strychnine, gr. $\frac{1}{40}$, hypodermically, and ordered hot bottles to be placed in the bed.

A mustard leaf was also applied to the precordial region for a few minutes. I hesitated to give apomorphine or other emetic in her condition, especially as six hours had elapsed since she had eaten anything. As soon as she could swallow, a large dose of castor oil was administered.

The patient responded to treatment with remarkable rapidity, and when I left her a little before five o'clock her temperature was 98°, pulse 116, skin warm, and she was quite conscious and rational but for a delusion that she had killed her baby. On being shown her baby—a ten months' old girl—safe in the cot beside her, she still persisted in believing that at least she had tried to kill it. She would give no cause for her condition.

Before leaving the house I interviewed her maid, and thence came the solution. "Would nutmegs do it, doctor?" "Nutmegs! How many did she take?" "Only four." She had grated four nutmegs into a cup, poured hot water over them, and drank them off just before going to bed. The reason for taking this novel draught was elicited from the patient when seen again later in the morning. Her last menstrual period had begun on March 9th, so that she was now two or three days overdue, and a kind friend had recommended nutmeg as a homely "remedy" without mentioning the dose.

At the patient's request I made an examination, and, needless to say, found no signs whatever of the desired effect. If further proof of the non-efficacy of her abortifacient is required, it may be found in the fact that I attended her in her confinement on December 11th last.

The nutmeg—the dried kernel of the seed of Myristica Fragrans—contains about 30 per cent. of a fixed oil, and 4 to 9 per cent. of a volatile oil. This latter oil is said to contain a terpene *Myristecen*, $C_{10}H_{16}$, which is an isomer of oil of turpentine and terebene.

The official dose of powdered nutmeg is 5 to 15 grains, of the volatile oil 1 to 5 minims, while the expressed or fixed oil is not used internally. The average weight of a nutmeg is about 70 grains, so that four of these give an amount equal to nearly 20 times the maximum official dose of the powdered nutmeg. In the face of these facts I think I am justified in calling this "a case of nutmeg poisoning."

(Read before the Victorian Branch of the British Medical Association.)

DOUBLE ETHMOIDAL SUPPURATION.—OPERATION.—RECOVERY.

By E. Temple Smith, M.B., M.R.C.S. (Eng.),
Charters Towers, Q.

I HAVE thought it worth while to record this case, not that there is anything remarkable about it or its treatment, but because it is a class of case whose symptoms are constantly coming under the notice of the practitioner, and while well known to the specialist, he seldom thinks it worth while to call the attention of the general practitioner to its importance as a clinical entity.

The patient, a hospital nurse, aged about 25, consulted me for persistent headaches, which were much relieved by correcting some astigmatism. Later they recurred, and were now vertically up the middle of the forehead. At this time, about two months before consulting me again, she was conscious of a nasty smell in her nose, which a fellow-nurse also remarked. She was also aware of something trickling down the back of the throat from the nose, as she thought. This, when coughed up, proved to be pus. When I saw her she was in good health and condition. There was no anterior nasal discharge, and there was no discharge in the pharynx when lying, only on standing. There was no obstruction to nasal breathing, and no tenderness about the forehead, cheeks, nose, or orbits; only severe headaches and a smelling discharge from the throat, which latter, however, was not obvious to me, and was, I think, chiefly subjective.

On Examination.—The pharynx healthy, and not glazed or atrophied; some pus seen on its walls. With the rhinoscope pus was seen coming from the middle meatus and about the hinder end of the middle turbinate. No other abnormality, and no adenoid hypertrophy. Anteriorly, no pus is seen in the nose. Both front ends of the middle turbinates are somewhat enlarged, but not gelatinous or polypoid in appearance. On probing, no caries was found in the neighbourhood of the middle meatus or elsewhere; but on using a closely wrapped wool-carrier on the left side some pus was detected on it from the depths of the meatus. After observations made on several days I felt convinced that there was focal suppuration connected with some of the more remote sinuses. Evidence was rather against the maxillary sinus being the site of the disease, and transillumination gave no assistance at all.

Operation.—A few days later Grunwald's typical amputation of the anterior end of the middle turbinate on the left side was done. As soon as bleeding was arrested, a mastoid sharp spoon was pushed cautiously up towards the middle ethmoidal cells, when fœtid pus welled out freely. The punch forceps and curette were now used to break down any septa between the cells, and the whole thoroughly curetted. There was no reaction afterwards, as Grunwald's injunction to operate boldly or not at all was followed. A wash was used, and now for a week or so pus came down the left nostril anteriorly for the first time ; then it stopped for good.

As the patient still complained of pus in the throat, a similar operation was done on the right side, and pus was again discovered in the ethmoidal cells by probing and curetting. All post-nasal discharge now ceased. But this side differed from the other in that instead of the anterior-nasal discharge stopping altogether after a few days, it persisted. Observations were made at short intervals to determine the source of the pus, and the ethmoidal cells were again curetted and broken down. After a short time the pus was clearly made out to be coming down the infundibulum, when a probe was passed into it. During the next few weeks a fine lachrymal silver syringe was passed a few centimetres into the fronto-nasal duct, and hydrogen peroxide injected up towards the sinus at intervals of a few days, and a wash used. After about two months all discharge had ceased, the free drainage evidently having allowed the frontal sinus to regain a healthy condition.

A year has now elapsed since the operations, and the patient is free from headaches and nasal symptoms, and the parts have a healthy appearance. All the operations were done under cocaine and adrenalin. The result was in large measure due to the fortitude and perseverance of the patient, who was willing to submit to any pain and discomfort to get rid of her trouble.

CLINICAL AND PATHOLOGICAL NOTES.

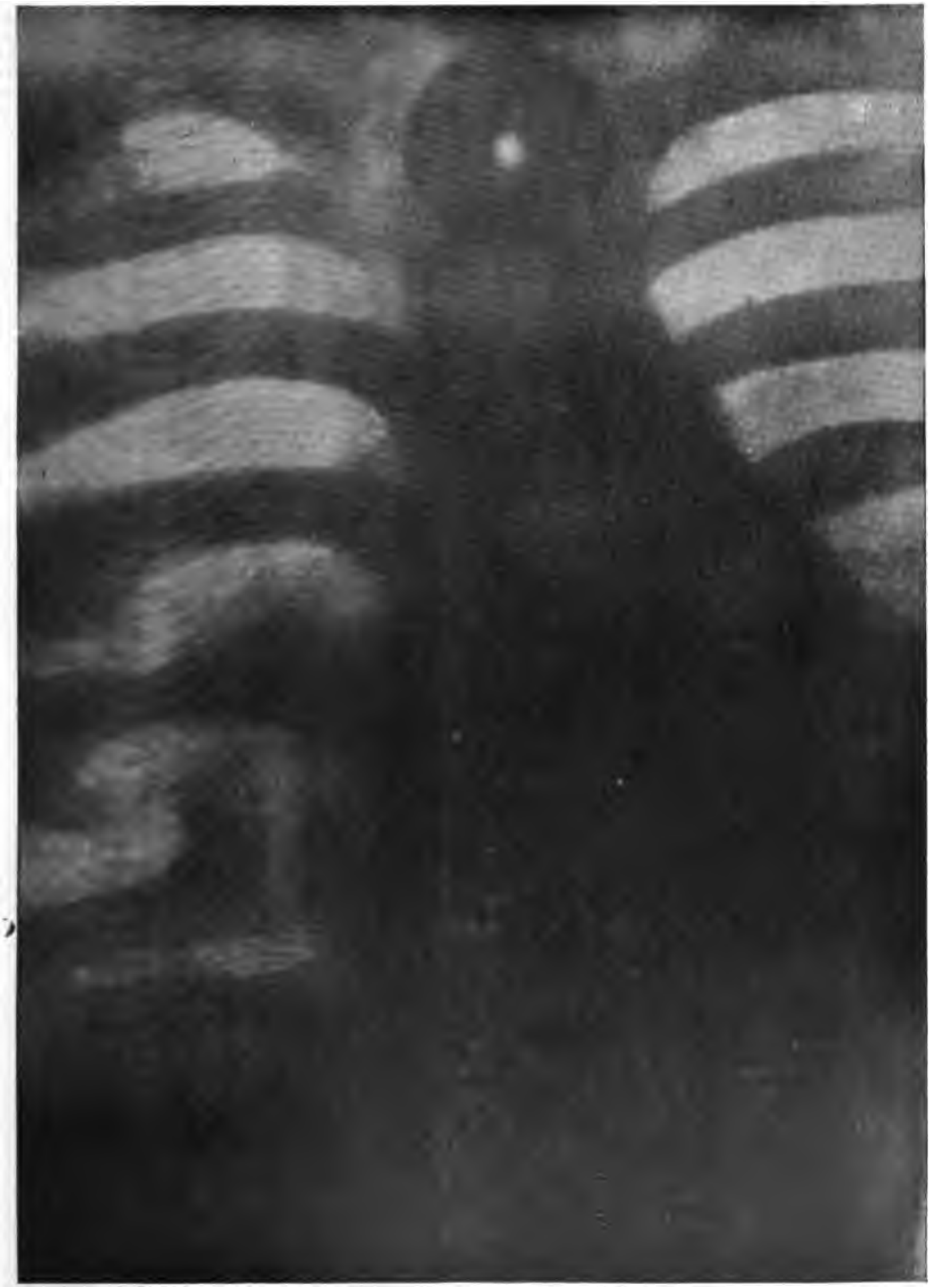
FOREIGN BODY IN THE ŒSOPHAGUS.

THE object of this communication is to call attention to the dangers of the use by children of the small circular whistles found usually in lolly packets, but also sold separately. Their average size is about that of a shilling, but they may be larger or smaller. They are made of tinned iron or other metal, and have a hole in the middle. The whole of the whistle is introduced into the mouth for whistling purposes, and the consequence is that it frequently slips down. It may pass directly into the stomach and escape per rectum without causing any further inconvenience, as in one case coming under my observation. It may, however, become lodged in the œsophagus, as in the following case, of which a radiograph is appended. In this case the whistle stuck in the middle of the œsophagus behind the lower part of the manubrium sterni, and could not be dislodged by induced vomiting or inversion of the patient. He was put under the X-rays, and forceps were passed down the œsophagus. The blade of the forceps could be observed by means of the fluorescent screen closing over the rim of the whistle, but, owing to the bi-convexity of the whistle, no proper grip could be obtained. As the patient had already had a fairly long exposure of the rays, further treatment was postponed until the evening, when the rays were again used and a coin-catcher passed down. During my manipulations the whistle became dislodged and was pushed down an inch or so, after which it was observed to glide into the stomach, where it remained stationary. It was passed per rectum next morning, 12 hours after getting into the stomach.

A similar case is figured in Williams' work on the Röntgen Rays. In this case it is stated that an operation was performed, but no details are given.

E. D. AUBIN, B.A., M.B., B.S. (Lond.),
Resident Surgeon, Thames Hospital, N.Z.

Royal Hospital for Women, Sydney.—The first part of the new building of the Royal Hospital for Women will be officially opened by her Excellency Lady Northcote on Wednesday, May 3rd. The completed portion comprises one wing and the operating theatre. The building at present in use has also been renovated. The grounds of the hospital contain quarters for the matron, nurses, and students in training, and out-patients' department, lodges, and other buildings of minor importance. In addition to opening the new building, her Excellency will at the same time open the grand fête in aid of the furnishing fund. The fête will be continued on the day following, Thursday, May 4th. The new hospital is erected on what was formerly the Dean Estate, consisting of 5½ acres, with entrances in Glenmore-road and Oxford-street, Paddington.



TO ILLUSTRATE Dr. AUBIN'S NOTE (See page 160.)

REVIEWS AND NOTICES OF BOOKS.

The Preparation and After-Treatment of Section Cases. By W. J. Stewart McKay, M.B., M.Ch., B.Sc., Senior Surgeon to the Lewisham Hospital for Women and Children, Sydney; late Surgeon to the Benevolent Asylum Maternity Hospital, Sydney; Fellow of the British Gynæcological Society and of the Obstetrical Society of London. With an introduction by Dr. Christopher Martin, of Birmingham. London: Baillière, Tindall and Cox. 1905. Sydney: L. Bruck, Price, 17s 6d.

The author states that his object in publishing this volume is to render easier the first steps of those who are beginning abdominal section work, a class of surgeons that, from choice or necessity, is without doubt on the increase in our midst, both in town and country. The instructions given in the ordinary text-books are not, in Dr. Stewart McKay's opinion, full enough; and he has here made use of the store of material which has been gleaned from the field of his personal experience and that of many other workers. The scope of the work is extensive. It includes what might be described as the entire strategy of the pelvic surgeon, together with a detailed account of the tactics employed in minor engagements with the enemy. It deals with the preparation for the great contest, with the best methods of following up a triumph, or carrying off the battered honours of a barely-snatched victory; and lastly, to prolong the simile, the author "moralises this spectacle," drawing useful lessons from reverses sustained by himself and others, and extracting wholesome teaching even from the story of defeat.

In the earlier chapters the modern operating room with its equipment gets a full description, and the preparations for operation in a private house are also described. The subject of disinfection is made clear by descriptions and illustrations of the various sterilisers; means for the sterilisation of dressings, ligatures, sutures, in all variety, are explained at length; an account is given of the instruments required; a chapter of ten pages is devoted to the disinfection of the hands, and the *pros* and *cons* of the rubber glove. The examination and preparation of the patient, note-taking, the duties of nurses and assistants, receive full attention; and all this with a care and industry that deserve great praise. Next comes the second great division of the work —the treatment of cases after operation. We have a full account of the various complications, with their management. And here Dr. Stewart McKay speaks with evident authority, as one who has followed up his own cases with great personal care.

Altogether the work evidences much thoughtfulness, and good judgment in the recommendation of measures. The tactics followed in combating ordinary difficulties, such as vomiting and the lesser abdominal distresses of early convalescence, bear the saving stamp of commonsense. For instance, in reference to constipation, the writer draws a simple but important distinction between cases submitted to sudden operation and those in which there has been time and opportunity for due preparation. He does not subscribe to the kind of modified persecution some patients are subjected to in the first 24 hours following operation. Following Tait and the older physicians, the prognostic importance of the facial appearance and the tongue is emphasised, and the attendant is encouraged to accept, not a single clinical occurrence, but the *ensemble* of signs and symptoms as his guide. The practice of varying authorities on these points, however, is not overlooked. All this should prove very helpful to the young surgeon upon whom is thrown the great responsibility of operatively treating diseases of pelvic organs in the female. There can be no harm in abundance of precaution, although precaution not based upon observation of facts may at times degenerate to an unworthy timidity. Dr. McKay's facts are bound to prove of sound assistance. He has an undoubted gift for the graphic presentation of his subject to the reader's mind, not unaccompanied in the present work by a due sense of proportion when advancing his more personal views. As a reference book in every difficulty connected with pelvic surgery, therefore, the work can be recommended with confidence; and we are glad to have the opportunity of welcoming an Australian author bringing with him such a plentiful harvest of industrious observation. A very full index of subjects is appended. The whole volume runs into 651 pages.

It may perhaps be questioned whether the immediate success now obtainable, comparatively easily, and by the comparatively crude surgeon, because of the ever-increasing efficacy of aseptic methods, has not in a measure given rise to abnormal chirurgical activity— that of the mere handicraftsman, in this and other departments. This by the way, however; for the consideration of indications for, and results of, operation lies not within the scope of the present work. We could, nevertheless, wish now that some Australian surgeon, with a capacity for painstaking observation like the author, and the experience of, say, two decades of work, would lay his legacy before the profession in the shape of the more distant results of cœliotomy for pelvic disease—the ultimate statistics, that is to say. The crux of your pelvic case may present itself, not so much before or immediately after operation as in the later years. *A la queue le venin.* The truth is not infrequently delayed to the postscript. An essay in this direction would throw light on an obscure corner of surgery. It would offer a basis of fact as against the confusion of jarring opinion, for the selection of ways and means to continue the battle in this veritable cockpit of medical effort. A.W.M.

A Text-Book of Obstetrics. By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Philadelphia. Fourth edition. Handoctavo, 900 pages, with 746 illustrations, 39 of them in colours. Philadelphia, New York, and London: W. B. Saunders & Co. 1903. Melbourne: James Little. Price, 21s.

The excellent text-book on gynæcology from Dr. Hirst's pen already published would lead us to expect him to give to the profession a worthy companion volume on obstetrics, and the present work fully justifies this expectation. It is an excellent exposition of the subject by one evidently accustomed to the teaching of it. The volume is well printed and the illustrations executed with that care and finish that we have now come to regard as the usual way of American publications. The subject is treated in a practical manner, making the book a desirable companion for reference and study by the general practitioner. It may be added that it is quite up to date and in line with all that is good in the recent development of the obstetric art.

Most diseases of women have a causal relation with parturition, and therefore such carefully-planned and executed works as the present deserve the encouragement of the medical profession. A.W.M.

PRACTICAL MANUAL OF DISEASES OF WOMEN AND UTERINE THERAPEUTICS, FOR STUDENTS AND PRACTITIONERS. By H. MacNaughton-Jones, M.D., M.Ch., Master of Obstetrics (*Honoris Causa*), Royal University of Ireland; F.R.C.S. of Ireland and Edinburgh; formerly University Professor of Midwifery and Diseases of Women and Children in the Queen's University, and Examiner in the Royal University of Ireland; ex-President of the British Gynæcological Society; Corresponding Member of the Gynæcological Society of Munich. Ninth edition. London: Baillière, Tindall and Cox. 1904. Sydney: L. Bruck. Price, 21s net.

This popular manual hardly requires an introduction to Australian readers. The favour with which the profession in general receive it is shown by its issue in nine editions since its first appearance in 1884. The present issue has been practically re-written and much enlarged, owing to changes made necessary by recent advances in pathological and operative work.

The main characteristic of the work lies in its cosmopolitanism and the catholic presentment of the practice of the gynæcology of the day. The author by no means confines himself to any one set or school—the works of American and Continental as well as British surgeons are freely drawn upon for facts and illustrations. The result is on the whole excellent, and the book will be found to be what its title professes—a reliable practical guide.

The author's devotion to the object of keeping in line with all the developments of modern gynæcology deserves the encouragement which the vogue of his book should bring. The get-up of the volume is handsome and highly creditable to Dr. MacNaughton-Jones and his publishers. A.W.M.

PRACTICAL APPLICATION OF RÖNTGEN RAYS IN THERAPEUTICS AND DIAGNOSIS· By William Allen Pusey, A.M., M.D., Professor of Dermatology in the University of Illinois, and Eugene W. Caldwell, B.S., Director of the Edward N. Gibbs Memorial X-Ray Laboratory of the University and Bellevue Hospital Medical College, New York. Second edition; thoroughly revised and enlarged. Handsome octavo volume of 690 pages, with 195 illustrations, including four coloured plates. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Cloth, 21s. Melbourne: James Little.

The fact that this excellent work has attained the distinction of two large editions in one year is a proof not only of the book's practical value but also that a long-felt want has been supplied. The vast amount of literature collected during the past year has been very carefully digested, and the latest knowledge and advancements incorporated. A practical feature of the work lies in the fact that nearly all the illustrations represent actual clinical subjects, showing the benefits of the X-rays at various stages of their application.

The chapters by Caldwell give full details regarding the use and management of the apparatus, the text being fully illustrated with many photographs and drawings, including four full-paged coloured plates. This edition has been brought strictly down to date, especially the case histories cited, and by the addition of much new matter and a number of new illustrations, the usefulness of the work has been greatly extended. To those concerned in the therapeutical use of the X-rays, this book can certainly be recommended as the latest and best on the subject. L.H.H.

MANUAL OF SURGERY. By Alexis Thomson, M.D., F.R.C.S. (Edin.), Assistant Surgeon, Edinburgh Royal Infirmary, etc., and Alexander Miles, M.D., F.R.C.S. (Edin.), Assistant Surgeon, Edinburgh Royal Infirmary, etc. Edinburgh and London: Young J. Pentland.

These authors have had a very long experience in the teaching of students, and have succeeded in producing a first-class text-book. Many manuals, otherwise good, are marred by their condensed "cram" style of writing. Thomson and Miles have apparently avoided this error, without making the work inordinately long. The book is well arranged, well printed, and easily read. The illustrations are good, and the majority of them original.

It is published in two volumes, resembling Professor Cuningham's well-known Manual of Practical Anatomy, and, like that work, is sure to become a favourite with students and practitioners. A.A.P.

LEGAL MEDICINE (IN INDIA) AND TOXICOLOGY (2 vols.). By Major Collis Barry, I.M.S. Second edition. Bombay: Thacker & Co., Ltd.

To the student, practitioner, or expert in medical jurisprudence this work will prove of very great interest, and will well repay any time devoted to its study. The outstanding feature of the work is the masterful manner in which the subject matter is dealt with. Vol. I consists of a practical description of the essentials of the subject, arranged in a thoroughly logical sequence and with headings which make the task of reference an easy one. Vol. II contains a list of cases illustrating the facts referred to in the text of vol. 1. The advantage of this arrangement will be apparent at a glance to anyone, and its utility to the practitioner, when suddenly called upon to give evidence in an obscure medico-legal matter, will make the work a most useful addition to the medical practitioner's library. The only fault that one can find with the work is one of omission, since it contains no reference to either the biological text for spermatozon or to the important subject of aphasia in will-making. One can with every confidence recommend the work as either a text-book or work of reference to students or practitioners. S.J.

A HANDBOOK OF SURGERY for Students and Practitioners. By Fredk. R. Griffith, M.D. Philadelphia and London: W. B. Saunders & Co. Melbourne: Jas. Little. Price, 8s 6d.

Dr. Griffith's Handbook of Surgery gives a brief outline of the principles and practice of surgery. The subject matter is too condensed to be of much value. It is hard to see what place articles on life insurance, rape and sexual perversions have in a handbook of surgery. There are faults in the arrangement of the subject matter—*e.g.*, under the heading of "Equipment" a description is given of how to deal with the "Dead at Sea." Some of the articles on treatment are incomplete—*e.g.*, the only operative treatment recommended for gastric carcinoma is Bibroth's method of pylorectomy. This book does not fill any particular place, and only adds to the already large category of unnecessary surgical publications. H.L.M.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH APRIL, 1905.

ALCOHOL AS A FACTOR IN HEREDITY.

ALCOHOL has for a long time been recognised as a most important factor in determining hereditary tendencies to certain morbid conditions, but how far the alcohol itself, and how far a morbid state of the nervous system of the parent leading to the alcoholic habit, are respectively responsible for the serious results in the offspring, has not been satisfactorily determined. We must recognise that the alcoholic habit is a definite morbid tendency frequently directly inherited, sometimes arising like other diseases apparently *de novo*. Some effects of the continued abuse of alcohol upon the human body, such as cirrhosis of the liver and kidney, the fatty changes in the heart and other viscera, the degenerative and inflammatory changes in the central and peripheral nervous system, are familiar to us; but we do not find these specific morbid changes directly inherited by the children of alcoholic parents, nor do we find the offspring of the chronic alcoholic inheriting any special vulnerability of any system of the body, with the important exception of the nervous system.

Numerous observations from all parts of the world agree in testifying to the large proportion of idiots, imbeciles, epileptics, and neurasthenics in general, occurring in the families of alcoholics, and many attempts have been made to ascertain why these results should occur. Some experiments have been designed to produce a direct effect upon the embryo during development, but they are not altogether reliable. More recently CARLO CENI has conducted some investigations on the question with a view of ascertaining the part played by chronic alcoholism in the production of imperfect conceptions and anomalies of development which are so frequently met with in the children of alcoholics. Two cocks and five hens were subjected to chronic progressive intoxication with 40 per cent. ethylic alcohol administered by the mouth. It was found after some months that a daily dose of 10 c.c. was the maximum amount which could be borne by the fowls without the phenomena of serious intoxication. Some of these birds died in a short time from severe gastroenteritis; the others survived for a year or two, but ultimately died from a progressive general cachexia. At the autopsy it was found that the reproductive organs did not show any appreciable atrophy or disease. The number of eggs laid by the alcoholised hens was very much less than the average laid by hens under similar conditions without the alcohol. To observe the effects of the chronic alcoholism on the products of conception, he incubated a large number of eggs laid by these hens. A certain number were incubated at a normal physiological temperature; others at a temperature which was varied from time to time. In only 43 per cent. did development proceed normally; in the remainder there was either arrest of development to a variable degree, or the death of the embryo, or various developmental anomalies. From these experiments taken along with well-known clinical facts, CENI concludes that alcohol has a direct effect in impairing fecundity, and that it exerts a direct action on the primitive sexual elements —the ovum and the spermatozoon— before conception, producing in them a diminished organic resistance, such that the least causes which can disturb the regular course of development of the ovum are sufficient to produce arrests and grave anomalies of development of the embryo.

Ceni's results may not be strictly applicable to what occurs in human beings, but they prove conclusively that alcohol can exert a direct detrimental effect upon the primitive sexual elements. When therefore we see the number of developmental arrests and anomalies in the families of alcoholics we are justified in concluding that the ova or spermatozoa are directly poisoned by the alcohol, and the embryo starts upon its development heavily handicapped and susceptible to the influence of slight causes, which would be harmless to a healthy embryo. These facts enable us to understand more clearly the reason for the early arrest of development and the early degeneration of the elements of the central nervous system in some diseases—a condition which has been termed "abiotrophy" by Sir W. Gowers.

ABORTIONISTS AND THE LAW.

The recent trial of a medical practitioner in Sydney on a charge of causing the death of a young woman as a result of procuring an abortion, has resulted in the failure of the jury to agree to a verdict. The same issue has occurred on several previous occasions, when accused persons have been placed on trial for a similar offence, and it would seem as if juries were unable to decide upon the guilt or otherwise of persons accused of this crime. The repeated failure to secure a verdict either favourable or unfavourable to the accused appears to point to some defect in the present mode of legal procedure, and it becomes a question whether some alteration is not required in the interests of accused persons as well as in those of the general public.

In the opinion of some men it is a matter of convenience, if not of necessity, that some means should be available whereby single young women who have become pregnant may be relieved of their burden. But these men appear to entirely overlook the fact that such a procedure is nothing more or less than murder, and that the procuring of abortion can only be justified when the continuance of the pregnancy is a source of danger to the life of the woman, and then only after careful examination and consultation. As the law now stands the use of any means to procure abortion on a woman, whether pregnant or not, is a criminal offence punishable with a heavy penalty; but the difficulty is to get sufficient corroborated evidence to place before a jury to secure the conviction of an abortionist. The administration of drugs or the performance of an operation for procuring an abortion usually takes place in the presence of the pregnant woman and the abortionist only, and the woman who submits herself to the proceeding is an accomplice in the eyes of the law; but no person could be convicted solely on the uncorroborated evidence of an accomplice. Dying depositions taken in due form, in which the dying woman definitely implicates a certain individual as the performer of the criminal operation, are almost invariably ruled out of court and not admitted as evidence at the trial; the jury are thus obliged to consider only circumstantial evidence, and hence the frequent failure to secure a verdict.

In the report of the Royal Commission on the Declining Birth Rate the question of the large amount of abortion-mongering prevalent in Sydney was carefully considered, and some suggestions were made with a view to putting a stop to this practice; but judging from the number of deaths, resulting apparently from criminally induced abortion, reported to the Coroner, it would appear that the practice is as prevalent as ever. One cannot but view with the deepest regret the deaths of so large a number of young women occurring as a result of septicæmia after induced miscarriage, since in the large majority of cases these unfortunate events are the result of gross carelessness and inattention. It is well known that abortion may be artificially induced with perfect safety, provided every care is taken to ensure asepsis, and if deaths from this cause occur repeatedly in the practice of one individual, it can only be the result of gross negligence or carelessness. If the present state of the law, or the present order of legal procedure, fails to bring an offender to justice, and prevent this needless waste of human life, then it is clear that an amendment in some direction is urgently needed in the interests of the whole community.

THE MONTH.

The Australasian Medical Congress, Adelaide, 1905.

The arrangements for the holding of the next Australasian medical congress at Adelaide in the first week of September next are well in hand. His Excellency the South Australian State Governor, Sir George Le Hunte, has kindly promised to give a garden party at the opening of the congress, and will entertain the officials at dinner. It is desirable that medical men intending to become members of the congress should at once give in their names and pay the subscription of £1 1s to the local secretaries in their respective States. Members who contemplate making any contribution to the scientific work of the congress should also send in the titles of their communications at once, so that ample time may be afforded to the general secretaries to make complete arrangements.

The Treatment of the Insane in New South Wales.

The overcrowded state of the hospitals for the insane in New South Wales has been referred to on several occasions in the annual reports of the Inspector-General of the Insane. He has pointed out that this state of affairs prevents the adoption of the best methods of treatment for cases of acute mental illness. It is gratifying to know that steps have been taken to increase the accommodation at the Hospital for the Insane at Gladesville by the erection of four new blocks of buildings, two for males and two for females. These are to be used for the purpose of keeping patients under observation for some time before they are drafted off to the wards most suitable for them. The buildings are to be of brick, with stone dressings, and a tender for two of these has been submitted. There is thus every reason to hope that before long these necessary additions will be available for occupation.

Hospital Administration in Melbourne.

The question of financial aid to the public hospitals has been engaging the attention of the Governments in Victoria as well as in the other States, and Mr. Bent, the Victorian Premier, has taken a decided step in the way of reducing some of the subsidies paid by the State. The management of the Children's Hospital in Melbourne has recently come in for some unfavourable comment. The Government has been paying a subsidy of £500 annually to this institution, £200 of which has been expended by the Committee in paying a pension to a former secretary. As the hospital committee say they feel bound to continue this pension, Mr. Bent has declined to pay the Government subsidy. This matter was referred to recently during the progress of a charity entertainment at Malvern in aid of the funds of the Alfred Hospital. The Hon. W. H. Edgar, M.L.C., said that while the public were always ready to support a hospital appeal, they were alive to the necessity of reform in hospital administration. A good deal of money subscribed for the amelioration of suffering went into the pockets of overpaid canvassers and in other extravagances, and he thought the public would heartily applaud the Premier's action in stopping in this instance the mismanagement of public moneys—the applying to the relief of one individual what was meant for many others. A central charity board would do away with these evils, and the public should certainly do its utmost to support the proposal to establish one.

The Australian Natives' Association Again.

It will be seen from the annual report of the Council of the New South Wales Branch of the British Medical Association that the A.N.A. in New South Wales again approached the Branch through their president, Mr. J.

A. Hogue, with a view to secure medical attendance on their members by members of the B.M.A. Mr. Hogue was most emphatic in his assertions that the association was in no sense a political one, that it had no connection with the similar associations in the other States; that it was, in fact, a most perfect example of what a medical benefit society should be. We have heard all this before; but the Council wisely determined to reaffirm the position it had already taken in the matter of its relations with the A.N.A. A short time back we published an extract from the speech of the president of the A.N.A. in Victoria, in which he made no secret of the fact that the A.N.A. was primarily and essentially a political organisation. At a recent conference in Adelaide of representatives of the South Australian Natives' Association it was resolved: "That in the opinion of this conference it is desirable to hold another meeting representing various boards of the Australian Natives' Association for the purpose of adopting in the interests of the association generally some practicable scheme for the creation of a federal board." The view was expressed that the associations in Australia should make one board, which could speak with one voice upon any important national questions which might arise. The profession throughout Australia should recognise that the A.N.A. is primarily a political organisation, with the medical benefits tacked on, and that this organisation has no claim whatever to any consideration at the hands of the medical profession.

District Nursing in Hobart.

At the annual meeting of the Hobart District Nursing Association held last month the report stated that in February, 1904, the committee decided that the funds of the association would allow a second nurse to be engaged to undertake nursing in one half of the town and suburbs. The number of visits paid by the two nurses during the year to patients in the city and suburbs amounted to 4000, and every committee meeting showed that the poor were making greater use of the benefit at their command. The treasurer's balance-sheet showed that, starting last year, 1904, with a balance of £224 9s 7½d, the donations amounted to £131 8s 4d, and the collections to £111 17s 1d, and interest to £6 11s 6d, amounting in all to £484 6s 3d, and the expenditure, £177 9s 3d. After a long period of struggling, the association had thus gained a firm place in the confidence of the citizens, and had proved its use and worthiness of support. There were still many parts of the city and suburbs not collected from, and apparently many citizens were either indifferent to or doubtful of the work of the association. The committee realised there was room for a great extension of their work, and hoped that now the association was better understood, continued support would enable those who managed, largely to increase its usefulness. During the past year the committee had met under the presidency of Mrs. Bright, who was chosen president *pro tem.* on the departure of Lady Havelock. Lady Edeline Strickland had now consented to fill the office of president.

The Liverpool Asylum for Consumptives.

The deplorable want of suitable accommodation for cases of chronic and advanced pulmonary consumption has again been adverted to in the daily press in a letter from the Mayor of Liverpool, in which he criticises the action of the Reform Government of New South Wales in deciding to proceed with the erection of a new public library while the poor consumptives are crowded together at Liverpool Asylum. The erection of a suitable hospital for advanced cases of pulmonary tuberculosis has been impressed upon successive Governments, but so far no definite steps have been taken towards supplying this urgent need. The securing of a suitable site has been no doubt a matter of great difficulty, as there are always objections raised to any suggested site by the local residents. The Queen Victoria Homes for Consumptives committee have been doing their best to deal with the early cases of this disease, but almost every day some applicant for admission to these institutions has to be refused on the ground of the disease being too advanced, and there is no place for these patients to go save the asylums at Liverpool and Newington, both of which are quite unsuitable for the purpose. It is useless to expect much benefit to result from the adoption of such measures as compulsory notification and disinfection of premises, so long as advanced and chronic cases of the disease are left to spread the disease in their own homes and in common lodging-houses. The Chief Secretary, Mr. Hogue, in reply to a deputation from Parramatta, stated that the asylums were an eyesore and a blot on the town as well as a source of danger. We hope Mr. Hogue will travel a little further than Parramatta, and inspect the consumptives' asylum at Liverpool. Perhaps he will then realise that the case of Liverpool is even more urgent than that of Parramatta.

The Adulteration of Leather.

It has been stated in certain quarters that the function of the health boards and health officials is simply to control the manufacture of foodstuffs, and that the sophistication of other manufactures does not come under their purview. This view has been advocated by the supporters of some of the leather manufacturers in the Commonwealth, whose products have been found to be adulterated with glucose and barium. Dr. Norris, the chairman of the Victorian Health Board, at a recent meeting explained that it was in consequence of a complaint received by the Premier (Mr. Bent) from the Chief Secretary of Queensland that a number of samples of leather obtained locally were analysed. Some of the samples offered by the manufacturers proved to be free from adulteration, but in regard to one establishment when the inspector called the manager stated that he could not have samples, but if he called back in a week he could have some. The inspector was accordingly instructed to purchase a number of samples from shops supplied by the particular factory, and these samples were proved to be adulterated in the manner indicated. If barium and other subjects were introduced into manufacture there was a possibility of their loading the air in factories with poisonous emanations, in which case it was clearly the duty of the board to interfere. The question was an important one, as typifying certain modern tendencies in the manufacturing process whereby an application of science to industries was made to the financial advantage of manufacturers, but not always without a depreciation in quality of the articles affected. The introduction of glucose in leather lowered its waterproof quality, and thus it might have a bearing on the general health of the community.

Royal Alexandra Hospital for Children.

The seventh clinical afternoon was held at this hospital on Friday, March 24th. Dr. W. Chisholm presided. Dr. Macmaster showed a healthy child, aged 8 months, with an unusual skin eruption. The child was spotted all over the body, limbs, face and scalp with brown macules. The spots varied in size from a large pin's head to a split pea, and some of them were slightly infiltrated. The rash had existed without material alteration, and without affecting the child's health, for five months. There was no evidence of syphilis. No one present expressed an opinion as to its identity. Dr. Littlejohn showed a girl, aged 11 years, suffering from sporadic cretinism. Dr. Gill exhibited a girl, aged three years, with a tumour of the liver, which he diagnosed to be a hydatid cyst. Dr. Wade demonstrated the result of a plastic operation on a malformed ear. He also showed a baby, aged 10 weeks, with a nasal discharge showing gonococci to microscopic examination, and a boy, aged 12 years, with a tumour of the scapula. Dr. Litchfield showed a feeble-minded child, aged 12 years. He said this was one of a number of cases that demonstrated the necessity of schools for the feeble-minded. He also showed an imbecile, aged 15 months, of the Mongolian type, and a baby, aged 6 months, with syphilitic epiphysitis. The blood count from the child with large spleen, shown by Dr. Menzies at the last meeting, was reported to be as follows:—Polymorphonuclear neutrophiles, 40 per cent.; hypophocytes, 20 per cent.; myelocytes, 21 per cent.; basophiles (mostly mononuclear), 13 per cent.; eosinophiles, 9 per cent. The case was therefore one of myelogenous leukæmia.

The annual meeting of the Sydney Metropolitan Medical Association will take place at 121 Bathurst-street, on Thursday, May 4, at 8.30 p.m.

The Melbourne Quarantine Station.—Last month a visit to the quarantine station near Portsea was made by the members of the Board of Health. The medical superintendent, Dr. J. Cooper Johnston, showed the official visitors through the buildings, which were found to be in a good state of repair. They have not been occupied now for over a year. The Government has decided to expend £1500 on the buildings for their repair and renovation. A sanatorium for consumptives, opened about a year ago for advanced cases which would not be received into the ordinary hospitals, occupies a cleared space on a hill, about a quarter of a mile behind the quarantine enclosure. Here there are a number of hessian structures, each with two beds, in which 13 patients were located. The houses and all the other buildings were scrupulously clean, and the patients appeared to be well looked after. There have been five deaths at the sanatorium since it was opened. The members of the board expressed themselves satisfied with the way the station has been looked after by Dr. Johnston and his assistants.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

The annual meeting of this Branch was held at the Royal Society's Room, Elizabeth-street North, on March 31st, at 8.15 p.m.

Present: Dr. A MacCormick (president) in the chair, and about 40 members.

The minutes of the last general meeting were read and confirmed.

The **President** announced the election of the following new members:—Dr. T. S. Davies, Lockhart; Dr. A. Robertson, Gilbert Islands; Dr. C. Shellshear, Burwood; Dr. F. G. Griffiths, Gundagai; Dr. G. R. C. Clarke, Wahroonga; Dr. A. Scott, Dapto; Dr. A. W. Hawthorne, Carcoar; Dr. A. Davidson, Callan Park,

The following gentleman is nominated for election:—Dr. C. A. Edwards, Waverley.

The report of the Council and the honorary treasurer's statements were adopted.

ANNUAL REPORT FOR THE YEAR 1904-5.

The Council, in presenting the report for the year 1904-5, takes this opportunity of congratulating the members upon the continued prosperty of the Branch.

General Meetings and Council Meetings.—There were 12 general meetings and 12 Council meetings held during the year. The general meetings were well attended. The papers and exhibits submitted for consideration received marked attention, and the discussions upon the various subjects were well maintained. There were 21 papers read, and 9 cases were exhibited.

Roll of Members.—Obituary.—The present roll o members is the largest since the formation of the Branch in 1881, namely, 488. There were 40 members elected during the year, 25 resigned, one was expelled, and 7 deaths occurred—Drs. Harrison, Macgregor, Taylor Hancock, H. Blaxland, F. W. Webb, Angel Money, and Crabbe.

Necessity for Increasing List of Members.—There is still a certain number of medical men not members of the Branch, and inasmuch as every unattached practitioner may be regarded as detracting from the efficiency of the Association in the efforts to improve the relations between members of the profession itself and between the profession and the rest of the community, no means should be overlooked of winning outsiders to our standard; and of all means the most effectual would be the exercise of personal influence and suasion by members of the Branch.

Annual Meeting of Parent Association.—Mr. Hankins, and Drs. Scot Skirving, Brady and Mackellar were appointed to represent the Branch at the annual general meeting of the Parent Association in England.

During Mr. Hankins' stay in England, Dr. G. H. Abbott kindly undertook the duties of hon. secretary, and the thanks of the Council were accorded to him for his services during that period.

Dr. Crago was appointed to represent the Council on the committee of the Sydney and Suburban Provident Medical Association.

Pharmaceutical Society.—A conference was held with the representatives of the Pharmaceutical Society on the questions relating to the profession. It was decided to hold a further conference at a later date.

A.N. Association.—The Australian Natives' Association is very desirous of re-opening the question of contract medical attendance on its members by a further conference; but the Council has decided that such a course would be undesirable and useless.

Medical Practitioners' Widows and Orphans' Fund.—The Medical Practitioners' Widows and Orphan Fund was approved of at the December meeting of the Branch. The need of such a fund has in times past been felt very keenly, and it is to be hoped that the present venture may prove successful.

Naval Medical Reserve.—A communication from his Excellency the Admiral has been received, asking the Branch to ascertain what members of the profession would be willing to act in case of war. It was pointed out that applicants would not be required to serve if at the time it were found inconvenient, but that they would have a prior claim to appointment. The regulations were published in the February number of the *A.M.G.*

Medical Congresses.—An effort has been made to bring about periodical meetings of all the Australian Branches of the British Medical Association instead of the Medical Congress, which has previously been held. Circular letters have been sent to the various Branches, but nothing definite has yet been done, although there is every reason to believe that the project may be accomplished in the near future.

Presentation by Dr. King.—Dr. H. K. King, late of Nowra, presented the library with some bound copies of the early numbers of the *Lancet* and *British Medical Journal.* The Council thanked Dr. King for his valuable donation.

Public Morals Association.—The Council decided to co-operate with the Public Morals Association on the question of indecent advertisements in the daily press. There can be no doubt but that a great deal of harm is brought about by such advertisements, and it is to be hoped that the Government will introduce legislation for the purpose of putting a stop to the evil.

Amending Medical Bill.—A draft bill, amending the Medical Bill in the direction of dealing with the question of reciprocity and the duration of the medical course, was drawn up and forwarded to the Medical Board, with a request that the Government should be asked to take the bill up as a Government measure. The Medical Board acceded to the request and forwarded the bill to the Government, but it has not yet been presented to Parliament.

Expulsion of Member.—It was necessary in the past year to expel a member owing to continued breaking of the rules of the Branch. This is the first and only expulsion which has taken place since the establishment of the Branch.

Discussion on Notification of Tuberculosis.—A special general meeting of the Branch was held on October 14th, 1904, when a discussion took place as to the notification of tuberculosis, when the following resolution was carried:—(1) "That in the opinion of this meeting compulsory notification of pulmonary tuberculosis is essential for the successful conduct of the fight against tuberculosis. That the New South Wales Branch of the British Medical Association hereby accords its hearty support to the new by-laws proposed by the Health Committee of the City Council. (2) That the resolution be communicated to the Lord Mayor and the City Council. 3. That this meeting of the New South Wales Branch of the British Medical Association respectfully requests the Board of Health to take steps to provide for the compulsory notification of pulmonary tuberculosis. (4) That it be an urgent recommendation that hospitals for advanced cases of phthisis be erected without delay."

A.M. Gazette.—The *Australasian Medical Gazette* has had a very successful year. The thanks of the members are due to the editor (Dr. G. E. Rennie) and the manager (Dr. W. H. Crago) for their work in connection with the *Gazette.*

The balance-sheet and list of papers and exhibits are appended hereto.

PAPERS.

"Myasthenia Gravis, with Notes of Two Cases."—Dr G. E. Rennie.

"A Record of Post-Mortem Examinations, with Clinical Notes."—Dr. Stacy.

"A Case of Severe and Prolonged Mononephros Hæmorrhage—Nephrectomy."—Dr. Maitland.

"A Rare Form of Tumour of the Small Intestine—Excision with End-to-end Anastomosis."—Dr. Maitland.

"A Congenital Malformation of the Gall-Bladder, complicated with Cholelithiasis—Removal of Gall-Bladder."—Dr. Maitland.

"Peritonitis or Ileus."—Dr. Charles MacLaurin.

"Conservatism in Renal Surgery."—Dr. Hinder.

"The Recent Epidemic of Infantile Paralysis."—Dr. Wade.

"The Recent Epidemic of Infantile Paralysis."—Dr. Litchfield.

"A Demonstration—Alexander's Operation on the Round Ligaments of the Uterus."—Dr. McKay.

"A Short Note on 'A Case of Hernia or Prolapse of the Ureter in a Female.'"—Dr. Furnival.

Dr. Skipton Stacy exhibited specimens and slides from Dr. Furnival's case.

"A Case of Diffuse Glioma of the Cord," with microscopic exhibits.—Dr. J. M. Gill.

"Aids to Diagnosis in Renal Surgery."—Dr. R. Steer Bowker.

"Eucalyptus Oil in the Treatment of Typhoid Fever." Dr. E. C. Hall.

"Spontaneous Recovery from Cerebral Neoplasm." Living exhibit.—Dr. G. E. Rennie.

"Disseminated Sclerosis of Congenital Origin in a Child." Living exhibit.—Dr. Macdonald Gill.

"Notes on a Case of Acute Myelogenic Leukæmia."—Dr. Macdonald Gill.

"Notes on a Case of Malignant Pustule."—Dr MacCormick and Dr. Tidswell.

"Notes on a Case of Deciduoma Malignum."—Dr Worrall and Dr. Windeyer.

"Hydatid of the Brain."—Dr. MacCormick and Dr. Mills.

"Lumbar Hernia, with Notes on a Case of Strangulation."—Dr. Charles MacLaurin.

"Myomectomy During Pregnancy."—Mr. E. T Thring.

"Some Problems in Asepsis—(*a*) Wound Infections of High Virulence; (*b*) the Sterilisation of Catgut."—Dr. Vallack.

"The Results of Six Months' Surgical Work at the Royal Prince Alfred Hospital."—Dr. Lethbridge.

"The Relation of Shiga's Bacillus to the Summer Diarrhœa of Infants."—Dr. Litchfield and Dr. Hipsley.

(*a*) "Some Analytical Determinations of Starch in Barley Water.' (*b*) "A Review of the Subject of Starch Digestion in Young Infants."—Dr. Corlette.

"The Result of Treatment in a Case of Nævus of Face." Living exhibit.—Drs. W. Chisholm and Newmarch.

"Notes on a Case of Bilharzia Hæmatobia."—Dr. Hinder.

"Notes on a Case of Friedreich's Disease."—Dr. W. H. Read.

EXHIBITS.

Specimens of Abnormalities of Kidney.—Dr. Palmer.

Steriliser.—Dr. Worrall.

Case of Friedreich's Disease (living exhibit).—Dr. W. H. Read.

Congenital Deficiency of the Clavicle.—Dr. Sinclair Gillies.

Patients suffering from Aneurism of the Aorta.—Dr. Mills.

Patient suffering from Nævus of the Face.—Dr. Newmarch.

Surgical Instruments.—Dr. R. Steer Bowker.

Patient. (Case of Spontaneous Recovery from Cerebral Tumour.)—Dr. Rennie.

Patient suffering from Disseminated Sclerosis.—Dr. J. M. Gill.

ATTENDANCE OF COUNCILLORS AT COUNCIL MEETINGS.

There were thirteen meetings held.

Dr. Crago attended 13 meetings, Dr. Rennie 12, Dr. Maitland 12, Dr. Worrall 11, Dr. Abbott 11, Dr. Dick, 10, Dr. Pockley 10, Dr. Hinder 9, Dr. Newmarch 9, Dr. Jarvie Hood 8, Dr. MacCormick 6, *Dr. Hankins 5, *Dr. Brady 5, Dr. Beeston 4.

*Drs. Brady and Hankins were absent in England part of the year.

The President then delivered his annual address. (See p. 145.)

Dr. Scot Skirving said he had much pleasure in proposing a vote of thanks to the retiring president for his excellent address. Like the giver, it was full of crystallised commonsense, and what Dr. MacCormick had said as to the functions of the Branch would commend itself to them all, especially his remarks on hospital abuse.

Dr. W. Chisholm seconded the motion, which was then carried with acclamation.

The President announced the result of the ballot for the election of officers and Council as follows:—

President: Dr. J. L. Beeston.
Vice-President: Dr. Antill Pockley.
Council:

Dr. Abbott
,, Brady
,, Crago
,, Dick
Dr. Hankins
,, Hinder
,, Hood
,, Jamieson
Dr. MacCormick
,, Maitland
,, Rennie
,, Worrall

Professor J. T. Wilson (of the Sydney University) and Dr. Taylor Young were nominated to represent the Branch at the annual meeting of the Parent Association at Leicester.

Dr. Maitland read the report and balance-sheet of the Medical Benevolent Fund.

Drs. F. Quaife, F. W. Hall and Macdonald Gill were re-elected the committee of this fund, Dr Faithful hon. treasurer, and Dr. Maitland hon. secretary.

Dr. Crago submitted a short report and the balance-sheet of the Lodge Practitioners' Defence Fund.

Dr. MacCormick then vacated the chair, which was taken by the new president (Dr. J. L. Beeston, of Newcastle). He thanked the Branch for the honour conferred upon him, and expressed the hope that one or more meetings would be held in Newcastle during the year.

STATEMENT OF RECEIPTS AND EXPENDITURE FOR THE YEAR ENDED DECEMBER 31st, 1904.

Receipts.	£	s.	d.
To Balance December 31st, 1903.. ..	189	18	8
,, Subscriptions received	994	0	6
,, Branch subscriptions received from Parent Association	2	5	11
,, Interest received	13	16	11
,, Amount added for exchange ..	3	1	0
,, *A.M. Gazette*, being balance of purchase money	362	8	0
	£1,565	11	0

Expenditure.	£	s.	d.
By *B.M. Journal*	480	17	6
,, *A.M. Gazette*	358	10	0
,, Printing	23	15	9
,, Stamps	30	19	0
,, No. 3 Account (provision for clerical assistance)	50	0	0
,, Dr. Knaggs, *re* library	30	0	0
,, Rent (Royal Society)..	12	0	0
,, Part subscription returned	1	5	0
,, Sundry petty expenses	24	0	1
,, Balance—Banks	550	0	10
,, Petty cash	4	2	10
	£1,565	11	0

THE "AUSTRALASIAN MEDICAL GAZETTE."

To the Council of the N.S.W. Branch
British Medical Association.

I have the honour to report that the *A.M. Gazette* has had another very successful year. The circulation has kept up, and the advertising columns have been well maintained. The receipts have been such as to allow of the balance of the purchase money—a sum of £362 8s—being paid back to the Branch. During the year the Editor has found a difficulty in publishing all the matter sent in, although several issues have been considerably increased in size. Some inquiries have been made as to the advisability of publishing fortnightly instead of monthly, but our London agents (Messrs. Baillière, Tindall & Cox) very strongly advise against it.

It is a matter for regret that communications from our correspondents in the other States have not been more numerous; but it is hoped that the new local editors lately appointed in two of the States will remedy that.

Thanks are due to Drs. Pockley, Taylor Young, Arthur, Flashman, Macdonald Gill, and others for their valuable assistance to the Editor.

Balance-sheet and statement of profit and loss account to December 31st, 1904, herewith.

W. H. CRAGO, Manager.

BALANCE-SHEET AS AT DECEMBER 31st, 1904.

Liabilities.	£	s.	d.
To Sundry creditors	93	3	1
,, Advertisement Revenue A/c (being unexpired portions of contracts included in Advertisement Revenue Account	200	13	7
,, Reserve for bad and doubtful debts..	90	0	0
,, Balance profit and loss..	1,554	2	4
	£1,937	19	0

Assets.	£	s.	d.
By Goodwill (at cost)	1,150	0	0
,, Sundry debtors..	744	17	7
,, Cash at bankers	42	16	5
,, Cash in hand	0	5	0
	£1,937	19	0

PROFIT AND LOSS ACCOUNT.

	£	s.	d.
To Printing account	733	18	8
,, Editor	150	0	0
,, Manager	100	0	0
,, Postage stamps, rents, salaries, discounts, commission and general expenses	415	3	8
,, Balance	1,554	2	4
	£2,953	4	8

	£	s	d.
December 31st, 1903—			
By Balance	1,305	13	7
December 31st, 1904—			
,, Advertisement Revenue Account ..	865	16	2
,, Subscription Revenue Account ..	781	14	11
	£2,953	4	8

FRED. W. HALL }
FRED. J. T. SAWKINS } Auditors.

W. H. CRAGO, Hon. Treasurer.

N.S.W. LODGE PRACTITIONERS' DEFENCE FUND.

Unfortunately, through want of a definite appeal to members, very little money has been subscribed to the above fund during 1904. A statement of the account shows that only £9 9s in subscriptions and £6 1s as donations have been received, while a sum of £100 has been paid to two members who resigned lodge appointments at the request of the Council of the B.M.A. Unless the fund is to be allowed to lapse, some strenuous efforts must be made to increase it. At the time the circulars were sent out by the hon. secretary of the B.M.A. asking for promises of support, a sum of about £200 was promised, mostly in annual subscriptions, but the total amount actually contributed to the fund in two years falls far short of that amount.

W. H CRAGO }
F. H. FURNIVAL } Trustees.
March, 1905. D. THOMAS }

STATEMENT OF ACCOUNT.

RECEIPTS.	£	s.	d.
Dec. 31, 1903—			
To Balance	136	6	3
1904—			
To Subscriptions received	9	9	0
„ Donations received	6	1	0
„ Interest	3	13	3
	£155	9	6

DISBURSEMENTS.	£	s.	d
July, 1904—			
By Amount paid to two members.. ..	100	0	0
„ Exchange	0	0	6
Dec. 31, 1904—			
By Balance	55	9	0
	£155	9	6

FRED. W. HALL }
FRED. J. T. SAWKINS } Auditors.

W. H. CRAGO, Hon. Treasurer.

Council Meetings.

The Council met at the Association Rooms on Thursday, March 16th, 1905. Present: Drs. Brady, Rennie, Hinder, Crago, Hankins, Jarvie Hood, Pockley, Worrall, Maitland, Dick, and Abbott.

The minutes of the previous meeting were read and confirmed.

Dr. Taylor Young was nominated as one of the representatives of the Branch at the annual meeting of the Parent Association at Leicester.

The HON. SECRETARY reported that only two applications had been received for the Naval Reserve Corps, Drs. Brennand and Willis.

Resolved—"That the University authorities be communicated with and the subject mentioned at the annual meeting."

The following correspondence was dealt with :—

From Dr. Park, of Corrimal, also from Dr. Lee, of Wollongong, enclosing a paragraph from the local press.

Resolved—That a letter be sent to Dr. Lee on the subject of the letter.

From the General Secretary of the Parent Association with reference to the subscription for the Colonial Branches.

Resolved—That the Parent Association be asked if it is necessary to alter the by-laws at all so that the Branches in Australia be allowed to fix the subscription to suit the local requirements.

From Mr. J. A. Hogue, president of the A.N.A., asking for an interview with the Council. The hon. secretary reported that he had had an interview with Mr. Hogue on the same subject.

Resolved—That the Council reaffirm its former resolution with reference to the A.N.A.

From Dr. Drummond, with reference to a benevolent fund.—Received.

Nominations of office-bearers and councillors received.

The draft report of the Council was read and amended.

Resolved—That Drs. Crago and Hankins be authorised to sign the ballot-papers.

The draft report of the *A.M. Gazette* was read and approved.

The balance-sheets of the general and *Gazette* accounts were submitted.

The Lodge Practitioners' Fund report and balance-sheet were submitted.

The Council met at the Association Room on Friday, April 7th. Present: Drs. Brady, Crago, Hankins, Rennie, Jarvie Hood, Maitland, and Hinder.

The minutes of the previous meeting were read and confirmed.

Dr. C. A. Edwards, of Waverley, was elected a member of the Branch.

Dr. Hankins was appointed hon. secretary and Dr. Crago hon. treasurer for the ensuing year.

Dr. Rennie was appointed editor and Dr. Crago manager of the A.M. GAZETTE for the ensuing year.

It was resolved that the remuneration to the editor and the manager be the same as last year.

A letter was received from the Hon. J. A. Hogue with reference to the A.N.A.

A letter was read from the Mutual Life Association of New York with reference to the signing of assignment papers.

Resolved that the hon. secretary be authorised to sign the forms.

A letter was read from Dr. Worrall, asking that the papers on the question of "Ethics" be forwarded to the Ethical Committee of the Parent Association.

Dr. HANKINS proposed "That a copy of the correspondence and statements be forwarded to the Ethical Committee of the British Medical Association."

Seconded by Dr. CRAGO and carried.

The HON. SECRETARY reported that he had received six applications for the Naval Reserve Corps.

Accounts were passed for payment as under :—Pepperday & Co., £3 11s ; Angus & Robertson, 16s.

The HON. TREASURER asked for authority to make a fixed deposit of £500 for two years with the Bank of Australasia. Approved.

Dr. RENNIE brought the subject of the British Medical Association in Victoria and Tasmania under consideration, and reported the condition of matters in Hobart.

Dr. CRAGO explained how matters stood in Victoria.

Resolved that the matter be referred to a sub-committee of this Council, consisting of Drs. Rennie, Crago, and Hankins.

Victoria.

The monthly meeting of the Melbourne and Victorian Branch was held on Wednesday, March 8th. In the absence of the President, the Vice-president (Dr. G. Cuscaden) was in the chair.

The minutes were taken as read.

A letter was read from the Pharmaceutical Society of Victoria in reference to the revision of the British Pharmacopœia. On the motion of Dr. Beckett and Dr. Fox, Professor Osborne and Drs. Bryant and Weigall were appointed to confer with members of the other medical societies and the Pharmaceutical Society.

Dr. Weigall opened a discussion on "The Sanatorium Treatment of Phthisis." (See page 157.)

Dr. W. B. Vance said that he had it on good authority that the peasants at Nordrach, where the famous sanatorium was, were riddled with tuberculosis. If this were the case at the home of the sanatorium treatment, where presumably all precautions were taken, it must also occur here at the Macedon and Echuca sanatoria, which were in comparatively more populated districts. The former was surrounded by some of the best country homes in Victoria. He thought that this Branch should protest against sanatoria being established in recognised health resorts. He doubted very much whether the aggregation of phthisical patients in sanatoria was less dangerous than allowing them to remain in their homes.

Dr. Cuscaden said that he could not agree with Dr. Vance in regard to his last statement, but thoroughly agreed with all that Dr. Weigall had said as to the great educational value of sanatorium treatment, especially with regard to the disinfection of the sputum. The great difficulty was to get patients to realise the seriousness of their condition in the early stages and to overcome their great disinclination to stay away from home for a long enough period. Apart from sanatorium treatment, he had seen marvellous improvement even in advanced cases from sending them to live healthy outdoor lives in the country.

Dr. Beckett agreed as to the value of open-air life in the country. When practising at Chiltern he had seen many patients who had been sent there improve wonderfully.

Dr. Laurie said that the subject of sanatorium treatment was undoubtedly one of the utmost importance at this time, when there was so much talk of the Kronheimer wing at the Austin Hospital and the new Government Sanatorium at Broadmeadows. It was right that the advantages and limitations of this method of treating the greatest scourge of mankind should be thrashed out. Sanatoria should serve three distinct purposes—curative, educational, and preventive—which might be discussed with three classes of patients. Firstly, there were those who were able to remain in a sanatorium until cure—economical or pathological—a proof of the inefficacy of the treatment as occurred in a certain number of cases. Secondly, those who could stay only a few months, in which merely improvement, or, at best, a so-called economical cure could be effected. In those cases the educational value of the sanatorium was of the greatest importance. It taught the patient to live a physiological life, the value of hygienic measures, and the prevention of infection. In that connection, at the discussion on sanatorium treatment at the British Congress on Tuberculosis, 1901, to which he had had the privilege of listening, Dr. Philip, of Edinburgh, said that the home treatment of phthisical patients was not easy to realise in practice. It was desirable that the patient, the nurse, and the doctor should have some experience of sanatorium methods. Then, thirdly, there were those patients in whom the disease progressed in spite of treatment or were admitted at too late a stage for even an economical cure to be effected. This was a very debatable class as to their fitness for admission or retention in sanatoria. The patients themselves had little or nothing to gain by remaining, except in the case of the poor, and these must be provided for somewhere, and not allowed to return to insanitary and squalid surroundings to be a continual focus of infection to their relations and neighbours. There were many of these cases in the suburbs of Melbourne, and it was for them, he considered, that the Kronheimer wing at the Austin Hospital would be especially suitable. Their presence in an ordinary sanatorium was inadvisable for many reasons. They could not but tend to have a depressing effect upon the more hopeful cases, and they were taking up room which could be more profitably utilised for cases in which there was a chance of securing at least an economical cure.

Dr. Laurie read "Notes on a Case of Nutmeg Poisoning." (See page 158.)

Dr. Cuscaden said that it was only recently that he had heard of nutmegs being taken in this way. He had seen two cases in which toxic effects had followed their cure, but in each case only one nutmeg had been taken.

South Australia.

The monthly meeting was held at the University at 8 p.m. on Thursday, March 30th, 1905.

The President (Dr. C. W. Hamilton) presided over an attendance of 25 members and three visitors.

Minutes of the previous meeting were read and signed.

Dr. J. A. G. Hamilton showed:—1. Dermoid cyst of right ovary, removed from child aged 11 years. It was about the size of a cocoanut. Only noticed six months before. Bony mass felt p.v. before operation and dermoid diagnosed. Cyst contained fatty matter and bone, with small tufts of hair growing in cavities of chondro-osseous tissue. 2. Fibromyoma of Uterus. Removed by supra-vaginal hysterectomy. Woman, aged 42. Had menorrhagia. There was extensive papillomatous degeneration of both ovaries, especially in right. Both uterine arteries were found pushed out from the uterus by the ovaries adherent to broad ligament. 3. Large Uterus. Removed by pan-hysterectomy from a woman aged 48, who had menorrhagia and a profuse malodorous discharge. Before operation had symptoms of septic absorption, with rapid pulse and temperature 101°. Uterus showed a large polypoid carcinoma, which had probably commenced as a benign polyp. Patches of carcinomatous patches all over interior of uterus. In two places it had all but penetrated the peritoneal covering. Immense propulsive hypertrophy of uterine walls. Large occluded sausage-shaped tubes, with polycystic ovaries. 4. Large dermoid cyst of ovary, removed from woman aged 52. Passed menopause three years. Cyst contained 15 pints of pultaceous matter. A secondary cyst had become adherent to abdominal parietes and had undergone malignant degeneration, with extensive infiltration of abdominal wall. 5. Uterus removed by vagina-abdominal pan-hysterectomy from woman aged 52. Considerable hæmorrhage. Menopause four years before. Uterus showed extensive cancerous involvement of intra-cervical portion of cervix. Os and body were free from cancer, but body very much enlarged. 6. Uterus removed by vaginal hysterectomy from woman aged 52. No menopause. Menorrhagia and metrorrhagia. In uterus the cancerous disease was also confined to intra-cervical portion of cervix. It had slightly invaded vaginal portion, but not in body. This is the fifth of a series of cases I have lately operated on for cancer of the uterus in which the disease had commenced in the intra-cervical portion of cervix, and not, as is more usual, on the vaginal aspect of cervix.

Specimens were also exhibited by Dr. Newland and others.

Dr. Lendon read notes on several cases of "Erythema Nodosum," the discussion on which was postponed.

Dr. J. A. G. Hamilton then read an interesting paper on "Some Unusual Ovarian Cases." (See page 155.)

New Zealand.

The annual meeting of the New Zealand Branch of the British Medical Association was opened at the Auckland Institute on February 28th, the meetings being held in the library.

There were preliminary meetings of the executive council and of members of the Medical Defence Fund.

In the evening the president-elect, Dr. E. Roberton, gave the presidential address, the subject being "The Management of the Public Hospitals of New Zealand." (See page 147.)

Papers were read by Dr. Mason, chief health officer, on "The Attitude of the State in Relation to Consumption"; Dr. J. P. Frengley, Auckland district health officer, on "Septic Tanks"; Dr. Barraclough, acting medical superintendent Avondale Asylum, on "Human Instinct"; Dr. Wohlmann, Government balneologist, on "The Scope and Limitations of Balneological Treatment." Other papers on medical and surgical subjects were also contributed.

Among those present in Auckland, in addition to the medical men above mentioned, were Dr. Valentine (district health officer, Wellington), Drs. Isabella Watson, Young, Albert Martin, and W. Collins (Wellington), F. Purchas (Dargaville), Brown (Tauranga, late of Dunedin), A. A. Martin (Palmerston North), McKee, Croft, and others.

The Government issued free passes to Rotorua to all medical men attending the meeting, and local hospitality included honorary membership of the Auckland Golf Club, together with an "At Home" at the Golf Club House, One-tree Hill, given by Dr. and Mrs. Lewis. The Auckland Bowling Club also placed its greens at the disposal of members. A visit was paid to the Avondale Asylum. On Friday the annual dinner was held in the Grand Hotel, and the visitors were entertained by Dr. and Mrs. Roberton with an excursion to Waiwera.

Queensland.

The monthly meeting was held in the School of Arts Hall on April 7th, 1905.

The President apologised for the absence of Dr. Ham, who was to have read a paper on the late epidemic of infantile paralysis, but was suffering from dengue fever.

Dr. Thomson said that it would be a good thing to have a clinical report of the epidemic drawn up while impressions were still fresh, and suggested that a committee be appointed for the purpose.

It was agreed to appoint Drs. Thomson, Love, Turner, Wield, and the president to obtain evidence and draw up a report.

An informal discussion ensued, members present giving their experiences for the benefit of the committee, and much interesting information was elicited. Nearly every medical man in Brisbane has suffered from an attack, and it was generally agreed that to say that more than half the population of Brisbane has suffered was a very moderate estimate; some inclined to place the proportion at three-fourths.

Reports of Other Societies.

New South Wales Medical Union.

The annual meeting of the New South Wales Medical Union was held at 121 Bathurst-street, Sydney, on March 29th, 1905. Present: Dr. P. H. Quaife (in the chair) and several members.

The members of the retiring committee were all re-elected without opposition.

The Hon. Secretary read the annual report for the past year, 1904-05.

TWELFTH ANNUAL REPORT.

The Council has much pleasure in reporting another successful year in the affairs of the Union. Two hundred and ninety-three (293) members have paid the annual subscription, there being ten whose subscriptions were included in the treasurer's statement of last year, as against 275 members in the previous year. Twenty-five new members have been elected, so that seven members have dropped out from various causes. The Council has to record with regret the deaths of Drs. J. B. Crabbe, T. Harrison, R. Hodgson, Angel Money, and H. Churchill Purcell. The local hon. secretaries have continued to perform their duties in a satisfactory manner. The Council has not been required to furnish financial assistance to any member. The Council propose that the following rule be substituted for Rule 24, viz.:—

"The Council of the Union shall investigate all cases in which assistance is sought from the Union, and have the power to grant any sum not exceeding £100, or to refuse any assistance, should it consider such a course necessary. Should the Council deem a larger sum desirable, it may recommend in addition any sum not exceeding £400, to be voted by a special meeting of members of the Union called for the purpose, but in no case shall the total sum voted exceed £500."

This proposed rule must receive the support of two-thirds of the members present to-night or represented by proxy before it can become operative.

The Treasurer's statement shows the funds in hand to be £2654 13s 1d, an increase of £378 6s 6d on the previous year; the ordinary office expenses being but £34 14s 6d.

Four Council meetings have been held. The number attended by each was as follows:—Dr. F. H. Quaife, 3; Dr. W. H. Coutie, 0; Dr. Fiaschi, 4; Dr. A. J. Brady, 1; Dr. C. U. Carruthers, 3; Dr. P. T. Collins, 3; Dr. Faithfull, 2; Dr. Foreman, 2; Dr. S. Jamieson, 3; Dr. Newmarch, 2; Dr. Rennie, 3; Dr. W. Spencer, 3; Dr. P. M. Wood, 0; Dr. W. H. Crago, 4; Dr. A. Jarvie Hood 3; Dr. J. M. Gill, 4.

The Hon. Treasurer read his financial statement for the past year, 1904-05.

The Chairman explained the reasons for the proposed alteration of Rule 24, to read as follows:—

"The Council of the Union shall investigate all cases in which assistance is sought from the Union, and have the power to grant any sum not exceeding

Statement of Receipts and Expenditure for the Year ended February 28th, 1905.

Receipts.	£	s.	d.
To Balance, 29-2-04	2276	6	7
,, 283 Subscriptions at 21s	297	3	0
,, 25 Entrance Fees at 21s	26	5	0
,, Interest to 31-12-04	83	2	0
,, 5 Subscriptions, 1905	5	5	0
,, Amount added for exchange	1	6	0
	£2,689	7	7

Expenditure.	£	s.	d.
By Printing and Stationery	12	4	6
,, Assistant Secretary	10	0	0
,, Rent	5	0	0
,, Exchange, cheques	2	1	0
,, Stamps	4	19	0
,, Bank charge	0	10	0
,, Balance in Banks	2,653	4	4
,, Petty cash	1	8	9
	£2,689	7	7

A. Maitland Gledden, } Auditors.
S. H. McCulloch, }
March 7th, 1905.

W. H. Crago, Hon. Treasurer.

The Treasurer in Account with the New South Wales Medical Benevolent Fund.

Dr. 1905—	£	s.	d.
Balance brought forward March 31st, 1904	100	16	0
Subscriptions received from March 31st, 1904, to March 31st, 1905	39	18	6
	£140	14	6

Cr. 1905—	£	s.	d.
Money disbursed to various deserving cases as decided by the Committee from March 31st, 1904, to March 31st, 1905.. ..	63	15	0
Stamps	1	4	6
Printing	1	2	6
Exchange on cheques	0	5	0
Bank fees	0	10	0
Balance in Bank, as per pass book ..	73	17	6
	£140	14	6

1905—	£	s.	d.
At deposit, Savings Bank of New South Wales as per Bank pass book, with accrued interest to Dec. 31st, 1904	131	3	3
Balance at credit in current account in the Commercial Banking Co. of Sydney, Bathurst-street Branch	73	17	6
Total credit at this date	£205	0	9

Audited and found correct. R. STEER BOWKER.
March 23rd, 1905. E. & O. E.

R. L. FAITHFULL, Hon. Treasurer.

£100, or to refuse any assistance, should it consider such a course necessary. Should the Council deem a larger sum desirable, it may recommend in addition any sum not exceeding £400, to be voted by a special meeting of members of the Union called for that purpose, but in no case shall the total sum paid to or on behalf of a member exceed £500."

instead of:—

> "The Council of the Union shall investigate all cases in which assistance is sought from the Union, and have power to grant any sum not exceeding fifty pounds (£50), or to refuse any assistance should it consider such a course desirable. Should it deem a larger sum requisite, or should it wish for the opinion of the members as to any disbursement, a special meeting of the members shall be called, at which meeting it shall be decided to what extent assistance shall be rendered or disbursement made."

and moved that the proposed new rule be adopted.

Dr. Gill seconded the motion.

An amendment to the effect that the sum of £200 be substituted for £400 in line 6, and £300 for £500 in the last line, was proposed and seconded. After discussion the amendment was lost, and the original motion was carried by a considerable majority.

A vote of thanks to the chairman closed the proceedings.

Medical Benevolent Fund.

The hon. secretary has to acknowledge subscriptions from the following:—Drs. Wallis, Spencer, Nolan, Lipscombe, Beeston, Thring, Meeke, Worrall, Stevenson, Clarence Read, F. A. Bennet, Crago, Nash, Dight, Littlejohn, Turkington, Jarvie Hood, E. Ford, G. H. Abbott, Woodward, MacCormick, Palmer, Stephens (Walcha), Lloyd, Reg. Bowman, R. Pope, Kane, Nickson, Blaxland, Humphery, Chisholm, Saunders, Edwards, Gillies, A. E. Mills, Machattie.

Medical Defence Association of Tasmania.

ANNUAL REPORT FOR THE YEAR ENDING DECEMBER, 1904.

The Council has again the satisfaction of reporting that no call has been made on the funds of the Association during the past year.

The membership remains the same as last year, viz., 29. Four new members have been elected, one member has left the State, and three are unfinancial.

The treasurer reports a balance of £61 in the bank.

The attention of the Council has been drawn to a letter issued by the National Mutual Life Association of Australasia, Limited, intimating that they are unable to pay more than half-a-guinea fee for medical examination of cases up to £150, and asking medical men to accept this reduced fee. In the same letter the manager ager of this Association goes on to say: "In places where I cannot do that, I shall be compelled to send a man along to examine the cases in bunches, instead of having them done by the local doctors." The Council urges the medical profession to resist this attempt to reduce fees to an amount so much below the value of work performed, and are further of opinion that the paragraph quoted contains a threat which the profession as a body should not submit to. In the event of any member of the medical profession having already agreed to accept these terms, the Council respectfully requests him to reconsider his position. One of the leading offices in Australia attempted to make this reduction three years ago, but failed owing to the firmness of the profession.

Members are reminded that their subscription of 10s for the year 1905 is now due, and should be forwarded to the hon. treasurer, Dr. A. H. Clarke, 61 Macquarie-street, Hobart.

The entrance fee for new members is 10s.

List of office-bearers for 1905:—President, Dr. G. H. Butler; hon. treasurer, Dr. A. H. Clarke; hon. secretary, Dr. W. W. Giblin; members of Council, Dr. E. L. Crowther, Dr. J. E. Wolfhagen, Dr. R. G. Scott, Dr. E. J. Crouch, Dr. G. H. Hogg, Dr. J. McCall, Dr. G. Sprott; auditors, Dr. E. W. J. Ireland, and Dr. E. J. MacGowan; legal advisers, Messrs. J. B. Walker, Wolfhagen and Walch.

Medical Society of Victoria.

The ordinary monthly meeting of the above Society was held in the hall on Wednesday, April 5th; the president, Dr. A. Jeffries Wood, in the chair.

Dr. A. W. F. Noyes read notes of a case of Aspergillus Niger growing on the tongue of a young child. He showed cultures of the fungus of various ages, and microscopical preparations. Cultures on alkaline agar showed a minimum of the black spore formation, while those on acid agar of varying degrees of acidity showed an increasingly abundant spore formation.

Dr. F. A. Newman showed a case of cervical spinal caries of two years' standing fitted with his splint. The splint is like the upper part only of the extended Thomas' splint used for cervical caries. It consists of metal arms encircling the chest below the arms, with a back piece extending up the spine to the back of the head, and moulded to the shape of the neck. From the top of this lateral arms pass closely round the sides of the head to prevent rotation, and a third arm extends over the vertex of the head to a point vertically above the chin. All these parts are perfectly rigid. The head is held in the splint by a piece of webbing from the extremities of the horizontal wings round the forehead and by a vertical strap passing beneath the chin. A third piece of webbing passes beneath the chest piece behind, the ends of which pass over the shoulders, cross in front, and are fastened by buckles to the side wings in front. Tightening these buckles raises the whole apparatus, and so through the medium of the chin-strap takes the weight of the head off the cervical vertebræ and transfers it to the shoulders. Dr. Newman claimed for this splint that it enables the patient to get about during the whole treatment. The patient he showed, a girl of 14, had worn the splint continuously for two years with no pain or discomfort, and was quite a useful member of society and able to do her share of housework. The disease was now quiescent, and he hoped to remove the splint very shortly.

Mr. E. L. Gault showed a case of congenital ptosis treated by a new method, in which use had been made of the superior rectus muscle, the natural adjuvant of the levator palpebrarum. He detached a portion of the centre of the superior rectus tendon from the eye, leaving the lateral portions intact, and inserted it into the lid. He showed photographs of the patient before operation. He had chosen the worst eye on which to operate, and it was now seen that the patient in looking upwards could raise the lid with very much less puckering of the forehead than on the side not yet operated upon.

In the discussion which followed, Dr. Kent Hughes congratulated Dr. Gault on his operation. As for Dr. Newman's splint, he would be very dubious about allowing a patient with any form of spinal caries to get about. It should be remembered that the shoulders did not constitute fixed points.

Dr. Webster discussed the demerits of the various operations for congenital ptosis, mentioning several cases where the immediate result seemed perfect, but where there was recurrence after various periods. He thought Dr. Gault's result exceptionally good and his operation theoretically correct. It should be remembered, however, that in some cases of congenital ptosis the superior rectus also was absent or non-functional.

Mr. Hamilton Russell considered that in spinal caries the proof of the efficiency of any apparatus was the elimination of pain. He thought the immobilisation of the cervical spine perfect in Dr. Newman's case, and the proof of the value of the splint was to be found in the case shown them.

The President agreed with Mr. Russell, and considered that any apparatus which did away with the fearful doom of two or more years' recumbency in a Thomas' splint was to be welcomed. Referring to Dr. Noyes' case, he said that he had first seen it at the Children's Hospital, when the tongue was covered with patches of black growth. It was a pity the case had recovered so quickly that it could not be shown to members.

Dr. Newman, in reply, said that he realised that the shoulders were not rigidly fixed, but that immobility of the head and the weight being taken off the cervical spine met all indications. He thought that hyper-extension was to be avoided.

Dr. Felix Meyer read notes of a "Rare Case of Abdominal Pregnancy." The patient, 26 years of age, three years married and with one child two years old, was seen in what she said was the tenth month of pregnancy. A few days before she had had a severe hæmorrhage and passed several large clots. She now felt well. There was an irregular abdominal tumour reaching only to the umbilicus. A diagnosis of abdominal pregnancy was made. She then disappeared for 12 weeks, during which she had three catamenial periods. At operation the fœtus was found in the abdominal cavity, and was about the size of a five months' fœtus. The placenta was attached to the top of the uterus, a little behind the fundus, and to both broad ligaments. The uterus had to be incised to remove it, without, however, opening the cavity of the uterus. Both tubes were perfectly healthy, and admitted a probe right to the cornea. The fimbriæ were free and healthy. The left tube lay behind the uterus. The ovaries were slightly cystic. The patient made a good recovery. Microscopically it was found that the placenta got most of its blood supply not from the uterus but from the peritoneum. The main point of interest was as to at what stage the ovum found its way into the peritoneal cavity. He thought it impossible that the fœtus and placenta could have been extruded from the tube at the time of the death of the fœtus, and the tube he found absolutely healthy. Was it a case of true abdominal gestation? In view of the theory of such men as Lawson Tait and Bland Sutton, a theory which the latter had reiterated as recently as December last, that such was impossible, he hesitated to claim it as such. He thought the most likely theory was that the ovum had fallen out of the fimbriated end of the left tube, which was in fact found behind the uterus at a very early stage in its development.

Drs. Rothwell, Adam, and Moore discussed the case, and thought that while in this case there was nothing against the theory of true abdominal gestation, yet a positive proof of it was absent. It was unfortunate that such a long period had elapsed between the death of the fœtus and the operation.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

University College, London—Cancer Research in the Colonies—International Congress of Medicine—A Centenarian Surgeon—The London School of Tropical Medicine.—Vital Statistics for London—Munificent Gifts to London Hospitals.

THE annual general meeting of the members of University College was held on February 22nd under the chairmanship of Lord Reay, who was re-elected President for the ensuing year. The President, in moving the adoption of the annual report, congratulated the members upon its satisfactory character. There had been an increase of 42 internal students of the University of London, making the total 387 at the college; while the number of post-graduate and research students was 108, a larger total than in any previous year. Alluding to the impending corporation with the University of London, he mentioned, amid applause, a number of benefactions which had been received by the council, including £100,000 from Sir Donald Currie for the purpose of providing a suitable building for the accommodation of the medical school and building, and furnishing a nurses' home in connection with University College Hospital and Medical School. Other substantial grants had been made by the Mercers' Company and the Drapers' Company, and Dr. Bayliss had generously handed over stock of the value of £1100, the amount awarded to him in the case of Bayliss v. Coleridge. There were probably many who would be sorry that the school would no longer be so closely associated with the college, but would as soon as possible be removed to Hampstead, where a site had been acquired, and where there was a distinct need for a secondary school of that class. He paid a tribute to the memory of the late Sir J. Blundell Maple for his splendid generosity in providing the new hospital opposite the college.

A blue-book has just been issued containing an interesting correspondence between the Colonial Office and the Colonies during the past two years on the subject of cancer research. The correspondence, which is brought down to the end of 1904, opens with circulars addressed by Mr. Chamberlain to the authorities of all British colonies and protectorates, calling attention to the creation of the Cancer Research Fund, and giving instructions that everything possible should be done to obtain the information necessary for the successful carrying on of the investigation. Very little immediate information was to be got from any of the colonies, and any that was forthcoming was mostly of a negative character. Thus, from Natal, came the reply that cancer was unknown among the natives of the colony, and from Gambia it was reported that cancer was not a disease to which West African natives were subject. At the request of the Cancer Commission, to which these results were communicated, another circular was issued, suggesting that it was not improbable that the apparent absence of cancer in some populous colonies was due to the fact that most of the patients treated in the hospitals had not attained middle age, before which cases of cancer are very rare in any country. This brought many replies, some of which went into considerable detail. From the Colonial Hospital at Gibraltar it was reported that the number of deaths attributed to cancer during the year 1903 was five, which, considering the population, was considerably under the average rate for the United Kingdom. In the case of the native population the predisposing causes seemed to be excessive cigarette smoking in males and too early maternity in females. It was possible that many cases of deep-seated cancers escaped notice, as post-mortem examinations cannot be held without the consent of the relatives of the deceased or by the coroner's order. From British Honduras and Sierre Leone the reply came that opportunities for observation were rare, but that cancer undoubtedly occurred occasionally. From British Central Africa the Commissioner replied that, though cancer does exist, it is a rare disease within his jurisdiction. As in many other Colonies, there is a widespread disinclination to consult doctors about ailments likely to entail surgical treatment. In Wei-hai-wei cases are said to be rare, but the absolute refusal of the Chinese to permit post-mortem examinations is a serious obstacle to accurate investigation. In the East African Protectorate the doctors are unanimously of opinion that cancer is rare among the native tribes. In Mauritius the hospital returns show that cancer is less prevalent than in England, but it is admitted that little is known of its frequency among the mixed population. In the Transvaal returns go to prove that the disease is practically confined to Europeans. In Ceylon the number of deaths attributed to cancer is 1 in about 450 per annum. A third circular, issued in November last, acknowledges the value of the information already received, but reiterates the desirability of forwarding specimens for microscopic examination when such cannot be properly made on the spot. Its closing sentences sum up the situation thus:—"The facts which have accumulated up to the present time appear to bear out the view that, on the whole, cancer is less frequent in aborigines than it is in civilised races. The Committee, therefore, earnestly desire that the cause of the apparent rarity may be more fully investigated, and they wish, in the first place, that attention may be particularly directed to endeavouring to ascertain the ages of such natives as may be found suffering from cancer, and also the average age attained by native men and women. From the information at present collected, it is not yet possible to conclude whether certain native races are or are not relatively exempt from cancer, because the apparent rarity of cancer may be due to various as yet unascertained causes, and, in the absence of definite information to the contrary, may be explained solely by the hypothesis that a very small percentage of aboriginal men and women attain or exceed the age of 45 years, below which age cancer is also rare in civilised peoples."

The National Committee of Great Britain and Ireland of the Fifteenth International Medical Congress to be held at Lisbon from April 19th to 26th, 1906, met at the rooms of the Medical Society of London on February 3rd. The chair was occupied by Dr. Pavy, F.R.S., President of the Committee. It was announced that the following gentlemen had agreed to act as *rapporteurs* at the forthcoming Congress:—Dr. Stanley B. Atkinson, honorary secretary of the Medico-Legal Society and barrister-at-law, "Spontaneous and Criminal Abortion in its Medico-Legal Aspect"; Dr. A. K. Chalmers, medical officer of health of the City of Glasgow, "The Administrative Control and the Technique of Public Disinfection"; Mr. E. Teacher Collins, "Ocular Tuberculosis"; Dr. Ferrier, "The Nature and Pathological Physiology of Tabes"; Mr. K. W. Goadby, "The Treatment of Pyorrhœa Alveolaris"; Dr. G. L. Gulland, "The Classification, Origin, and Probable Rôle of Leucocytes, Mastzellen, and Plasma Cells"; Dr. F. W. Mott, "Cerebral Lesions in Psychoses of Toxic Origin"; Mr. D'Arcy Power, "Recent Advances in the Surgery of the Arteries and Veins"; Dr. G. F. Still, "The Spastic Affections of Childhood, their Classification and Pathogeny"; Dr. I. F. Sutherland, Deputy-Commissioner in Lunacy for Scotland, "The Prophylaxis and Treatment of Habitual Criminals"; and Mr. C. E. West, chief assistant in the aural department of St. Bartholomew's Hospital, "Study of the Epileptgenous Action of Foreign Bodies in the Ear and of Post-nasal Growths." These subjects have, in each case, been selected by the Executive Committee at Lisbon. A discussion on Tropical Medicine will be opened by Sir Patrick Manson. Arrangements are being made to provide for the comfortable accommodation of visitors to the Congress, so that the disastrous consequences of defective organisation experienced at the last meeting at Madrid may be avoided. The honorary secretaries of the National Committee are Dr. Clive Riviere, 19 Devonshire-street, and Mr. D'Arcy Power, F.R.C.S., 10A Chandos-street, London.

Senor Manuel Garcia, who invented the laryngoscope, will complete his 100th year on March 17th next. The anniversary is to be made the occasion of great demonstration in his honour by laryngologists of every nationality, who will at the same time celebrate the jubilee of their speciality. At the request of admirers throughout the world, it has been decided to present Senor Garcia with his portrait painted by Mr. John Sargent, R.A., together with an album containing the names of the subscribers. Notwithstanding his great age, Senor Garcia is still fairly vigorous in body. His mental powers are absolutely undimmed, and his memory of scenes and events witnessed by him in Spain in his early boyhood is remarkably vivid. In addition to his native tongue, Spanish, he speaks English, French, and Italian fluently, and has some knowledge of German.

It has been arranged that a banquet shall be held in the Hotel Cecil on May 10th next to promote the financial prosperity of the London School of Tropical Medicine. The Right Hon. Joseph Chamberlain, M.P., formerly His Majesty's Secretary of State for the Colonies, has consented to preside. The Duke of Marlborough is chairman of the Dinner Committee, Lord Strathcona and Mount Royal, vice-chairman, and Lord Rothschild, honorary treasurer. The Right Hon. Alfred Lyttelton, Colonial Secretary, and many other leading and influential men have already intimated their intention of being present. A similar banquet was held in 1899, at which £16,000 was raised to defray the preliminary expenses of the school. Since then the original accommodation has been more than trebled, and the increased number of students has demanded important laboratory and class-room extensions. It is hoped that the forthcoming banquet will be the means of defraying the debt thus inevitably incurred and of enabling the school to complete its equipment in many important details. Up to the present 491 students have been enrolled since the foundation of the school. Of this number 187 were in the Colonial Service, 20 in the Indian Medical Service, 3 in the Royal Navy, 29 in the service of Foreign Governments, 18 in the service of Foreign Office; 53 were missionaries, and 181 private students. From a fund at the disposal of the Colonial Office, the sum of £1000 a year has recently been granted to the school for five years, to be devoted to the study and teaching of helminthology and protozoology. In accordance with the terms of this grant, the following appointments were made in January:—Helminthologist, Robert T. Leiper, Esq., M.B., Ch.B., Glasgow; Protozoologist, W. S. Perrin, Esq., B.A.

The annual statistical report for 1903, which was issued on January 14th by the Medical Officer of Health for the County of London, affords gratifying evidence that London is fully maintaining its reputation for being one of the healthiest cities in the world. The death-rate for the year was the lowest on record, and amounted only to 15·2 per 1000 of the population, but against this has to be set the fact that the birth-rate was also the lowest on record, reaching no higher than 28·4 per 1000. The only great cities with lower death-rates than London are Brussels, Amsterdam, and Stockholm. The infant mortality rate in London in the period 1893-1902 and in 1903 was lower than in any of the principal English towns except Bristol. The number of marriages during 1903 was 40,215, giving an annual rate of persons married of 17·4 per 1000 persons living, a slight decrease in the rate for 1902, *i.e.*, 17·8. 416 cases of smallpox were notified during the year as compared with 7796 in 1902 and 1700 in 1901, the deaths from the disease in those three years being respectively 13, 1314, and 229. Measles accounted for 2046 deaths, and phthisis for 7124, as against 7424 in 1902. The deaths registered under the heading of "cancer" increased, 4695 fatalities being ascribed to this cause. The annual average of deaths during the preceding ten years was 3964.

On New Year's Day, Lord Mount Stephen forwarded to the Prince of Wales, as President of King Edward's Hospital Fund, one hundred thousand pounds Argentine Government Funding Bonds, and one hundred thousand pounds Buenos Ayres Water Works Bonds, as a gift to the fund. This magnificent donation will yield an annual income of eleven thousand pounds, and is the second large sum which Lord Mount Stephen has contributed to this deserving cause. The following correspondence in bestowal and acknowledgment has been published. Lort Mount Stephen, writing to the Prince of Wales, says:—"Brocket Hall, Hatfield, January 1st, 1905. Sir,—I am very sorry to hear that the anonymous offer to contribute the necessary capital to provide one-third of the annual sum required, say £14,000, to make the fixed income of the King's Hospital Fund up to £50,000 a year, has lapsed in consequence of the inadequacy of the response to the appeal made by your Royal Highness now nearly a year ago. Having for many years past taken a great interest in all that concerns the sick poor, and having from its foundation regarded the King's Fund as an ideal organisation for the distribution of the gifts and subscriptions of all those, who, like myself, have no personal interest in any particular hospital or convalescent home, it is therefore a great pleasure to me to be able to send your Royal Highness, enclosed in this, an order for the delivery to your order, as President of the Fund, £100,000 Argentine Government Funding Bonds, and £100,000 Buenos Ayres Water Works Bonds. These bonds yield an income of £11,000 a year, leaving £3000 a year still to be provided for, affording a great opportunity for someone both willing and able to do a beneficent act in aid of the most deserving of all our charities. I am sorry to see that the distribution this year is only £80,000, just a little over half the sum aimed at on the foundation of the Fund. I sincerely hope that the distribution will go on increasing from year to year, until the £150,000, originally aimed at has been reached.—Believe me, Sir, your Royal Highness's most obedient servant, Mount Stephen." The King, writing to his Lordship, in reply, on the following day, says: "Sandringham, Norfolk, January 2nd, 1905. My dear Lord Mount Stephen,—The Prince of Wales has shown me your letter of yesterday's date. As the founder of what is at present called 'The King's Hospital Fund for London,' which originated to commemorate the late Queen's 'Diamond Jubilee,' I am anxious to lose no time in expressing to you my high appreciation of your magnificent donation. I have not forgotten that it is the second large donation which you have so kindly given, and I have every hope that, owing to your great liberality, my Fund will now be placed in the sound permanent position I had always hoped it would attain.—Believe me, very sincerely yours, (Signed) Edward R." The Lord Mount Stephen, etc., etc."

Victoria.

(FROM OUR OWN CORRESPONDENT.)

The Austin Hospital for Incurables—The Cure of Tuberculosis—The Terms of Agreement with the Resident Medical Officers of the Melbourne Hospital—The Rhodes' Scholar for 1905.

THE question of the Kronheimer wing of the Austin Hospital for Incurables is still exercising the minds of those concerned. The Government have at last decided to allow it to be used for advanced cases of phthisis, but the conditions are at the time of writing still under dispute. On March 13th the Premier called a conference of representatives of the hospital committee, the municipality of Heidelberg, and the Central Board of Health to meet him. At this conference it was decided that the Kronheimer wing should be opened and used for phthisical patients under certain restrictions and conditions agreed upon, and Dr. Norris, the chairman of the Board of Health, was deputed to draw up conditions in accordance with those agreed upon. The following are the conditions as drawn up by Dr. Norris:—1. That the new wing is to be recognised as the Kronheimer building, and is to be utilised for such advanced cases of consumption as conform to the terms of the present charter and by-laws of the institution, viz., cases "progressing to a fatal termination," and especially "cases which require careful nursing, and in which medical aid is not the first essential." 2. The accommodation provided for consumptives in the hospital is to be utilised specially for hopeless and helpless cases, and for the segregation of those cases in which the circumstances of the patient and his condition are such that it is necessary in the public interest as well as on the grounds of humanity that the patient shall be isolated. 3. Patients suffering from advanced tuberculosis other than those in a hopeless and helpless condition are not to be admitted until the medical officer has ascertained that there is no accommodation available in any institution which specially deals with such cases. 4. In the event of a patient admitted to the Austin Hospital giving evidence that there is reasonable ground for the hope that treatment under sanatorium conditions will result in marked improvement, accommodation is to be sought for such a patient in an institution of the class above mentioned. 5. The movements of all patients suffering from tuberculosis are to be rigidly conditioned, so as to prevent the possibility of the spread of the disease by such patients; the medical officers and secretary of the hospital to confer with the chairman of the Board of Public Health regarding the conditions. 6. That the number of consumptive patients to be accommodated in the existing consumptive wards shall not exceed 30. 7. That three members of the Austin Hospital committee shall be appointed by the Governor in Council to represent local interests. The present accommodation for consumptive patients at the Austin Hospital consists of 45 beds. Thus the agreement as drawn up would double the number of beds available, as the Kronheimer wing will hold 60 beds. A day or two later it was announced that the residents of Heidelberg objected to number six of the conditions, considering that this allowed for more accommodation than had been agreed upon. They promptly deputationised the Premier. Later, the following letters, the former on behalf of the Victorian Association for the Prevention and Cure of Tuberculosis, were forwarded to the Premier, who then announced that he would give both sides a hearing at the Cabinet meeting of Friday, April 6th. The letters referred to are as follows:—"Melbourne, March 28. We have the honour to inform you that, at a meeting of the Victorian Association for the Prevention and Cure of Tuberculosis, held this afternoon, the details of the arrangement made by you, and reported in the Melbourne press on March 15 were considered. The text of the arrangement is appended. The committee is deeply interested in this subject, having been appointed by a public meeting, presided over by the Governor-General, and having acted as the adviser of Mr. Kronheimer in the disposal of his munificent gift. We are requested to convey to you our entire satisfaction with the details as here set forth. The Austin Hospital will now be able to receive urgent cases of advanced tuberculosis, keeping the Kronheimer wing for men, and reserving thirty beds, as agreed, in the present consumptive ward for women. A newspaper paragraph, indicating the probability of some alteration in this arrangement, was incidentally mentioned at to-day's meeting, but as there can be no doubt of the details as sanctioned by you, the committee declines to believe that there is any further need of urging the necessity of at once giving effect to the agreement.—James Jamieson and Henry Laurie, vice-presidents."—"We, as members of the medical profession, take this early opportunity of expressing our great satisfaction at the settlement arrived at in respect to the Kronheimer building at the Austin Hospital, and at your resolve to allow the building to be at once opened for the treatment of cases of advanced consumption, and at your permitting a considerable increase of such cases to be treated there. We regard the provision of 90 or 100 beds for cases of advanced and practically incurable pulmonary consumption as work of the most vital importance to this community. It has been shown that there are probably about 2500 cases of pulmonary consumption in the metropolitan area, and of these at least 10 per cent. require special hospital accommodation. For these 250 cases the accommodation at present provided (exclusive of the wards of the Austin Hospital), or the extra accommodation immediately to be provided, is quite inadequate. At the most there will be beds for 150 cases only, that is, 60 beds at the Macedon Sanatorium, 40 beds to be provided at the Broadmeadows Sanatorium, 20 beds in the country hospitals' sanatoria, 30 beds in the metropolitan and other hospitals. For instance, there are in the Melbourne Hospital at present 19 cases of advanced consumption. Ninety or a hundred beds are needed still, and these the Austin Hospital will at once supply. With proper precaution we are sure that such a number of cases can be treated at the Austin Hospital without any risk whatever of injury to the inhabitants of Heidelberg, and we would further point out that the value of the work to be done at Broadmeadows and other institutions for less advanced cases will be greatly increased by the reception of the more advanced and incurable cases at the Austin Hospital." The letter is signed by Dr. John Williams, Dr. David Grant, Dr. Springthorpe, Dr. Maudsley, Sir T. N. Fitzgerald, Surgeon Colonel Charles Ryan, Dr. W. R. Boyd, Dr. J. F. Wilkinson, Mr. G. A. Syme, F.R.C.S., Dr. J. Jamieson, Dr. R. H. Strong, Dr. G. T. Howard, Mr. R. Hamilton Russell, F.R.C.S., Dr. R. R. Stawell. The Cabinet meeting was duly held and both sides were heard, but no decision was arrived at. The Cabinet decided to leave the matter in the hands of the Premier, who has announced his intention of visiting the hospital before giving any decision. It is to be hoped that the original terms will be adhered to, as the extra accommodation is urgently required. The attitude of the medical profession as a whole is very clearly expressed in the letter printed above.

The Committee of the Melbourne Hospital have lately had under consideration the making of the terms of agreement with the Resident Medical Officers more stringent. The position is open to those who gain the top places in the final honour examination each year, and at the end of their term a certificate is given by the Hospital Committee. The experience in past years, and this has been no exception, has been that before the end of the twelve months several of those appointed have left the hospital and their positions are filled by *locum tenentes*. The committee consider that in this way the work of the hospital suffers considerably, as they leave just when becoming more efficient. A sub-committee consisting of Dr. W. Moore, Mr. John Grice, and Dr. T. P. McInerney, with Professor Allen as adviser, was appointed to consider the question. The result is that the resident medical officers in the future will be required to sign an agreement to act for the full twelve months, and the usual certificate will be withheld where this is broken. The committee, in our opinion, have themselves largely to blame for this state of affairs, owing to their leniency in the past. We remember one case where a resident departed suddenly, because he thought he had a good offer, without informing the committee or even making any arrangements for a *locum tenens*. When he turned up again from what turned out to be a wild goose chase after a lapse of about a week, the superintendent would not allow him to go on duty, but the committee, on appeal to them, allowed him to resume duty with merely a mild reprimand of the don't-do-it-again order.

The selection of Dr. Harvey Sutton as Rhodes' Scholar for 1905 is most popular, not only in the medical profession but also in the sporting world. We are pleased to see his name among the successful candidates in the recent examination for Doctor of Medicine.

THE BATTLE OF THE CLUBS.

(To the Editor of the Australasian Medical Gazette.)

Sir,—Having, as a member of the B.M.A., read your journal *re* hospital abuse, I should like to remind you of an equally great injustice the profession suffers under, namely, lodge abuse. When will the profession be united so that they can insist that any man earning over, say, £300 per annum shall, if a member of a lodge, be debarred from obtaining the services of his lodge doctor for a pound a year? As things are now here in Charters Towers, we have mining magnates, managers, brokers, publicans—men who could buy and sell their doctor ten times over—all availing themselves of lodges. Furthermore, a few weeks ago the enclosed circular was distributed with every copy of the morning paper. Also a dispensary and chemist's shop combined (which also stocks photographic requisites and fancy goods) is run at a handsome profit, so that the secretary gets yearly bonuses, while the lodge doctors are cut down a shilling. Under the old contract, however, it was possible to charge and obtain small fees for surgical operations, but now a new contract has been placed before us to sign, in which to the clause specifying the doctors' duties the following has been added:—" And shall perform all surgical operations of whatever nature that may become necessary free of all costs and expense whatever to any member." And in another clause it is laid down that if the lodge doctor refuses to operate and the patient goes to another doctor to have the operation performed, then the secretary may deduct from the doctor's quarterly lodge cheque the fees and charges of the operator.

Now, Sir, I ask you are we as professional men to submit to sweating such as is entailed by this new contract? Surely the B.M.A. would endorse our action in refusing to sign or to meet any man who by crawling acquired a large lodge list and would sign anything to keep it.—I am, yours, etc., W. J. Fearnley.

Charters Towers, Queensland,
April 2nd, 1905.

PRACTICES FOR SALE.

N.S.W.: Prac. in good town, wealthy district, est. 44 years, present owner 15½ years, predecessor 20 years. Cash take always over £1000. Appts., £324. This is in a pastoral and farming district, 865 ft. above sea level. Temperature: Summer, 72 deg.; winter, 55 deg. Town has a hospital. We know this prac. well, and recommend it. Price, £750.

N.S.W.: Unopp. prac., near Newcastle, est. 14 years. Cash take, £600; appts., £140. Price, £110. This is a good practice, and cheap.

S.A.; A splendid opening is available, In two or three years time would probably be worth £1000.

S.A.: Prac. in Adelaide, which for 26 years has averaged £2000 cash annually. This is a general practice. Price, £750. Good introduction.

N.Z.: In most delightful town. Prac., cash take nearly £900. Good class practice easily worked. Population, 5000. Splendid district. Price, £450.

Tas.: Prac. in city of Launceston. Cash take £600, with sound foundation for large increase. Appts., £200. Price, £150. Strongly recommended.

Mr. F. W. LOXTON, Medical Agent,
16 O'Connell-street, Sydney.—[Advt.

REVIEW OF CURRENT MEDICAL LITERATURE.

GYNÆCOLOGY AND OBSTETRICS.

On Fœtal Menstruation and its Importance.

Halban (*Monats. für Geburts und Gynäkol.*, bk. xx., ht. 4). A discharge of blood from the female generative organs in the first few days of life is by no means an uncommon occurrence, and has generally been considered of but little importance. The author shows that this is a part of a physiological effect upon the fœtal uterus of certain substances circulating in the maternal blood as a result of pregnancy. Histological examination of fœtal uteri shows great hyperæmia of the lining, and, indeed, changes which are quite analogous to those of menstruation. The maternal uterus forms a decidua as a result of the irritation caused by some substance produced by the developing embyro, and the fœtal uterus reacting in a like but less marked manner, produces changes analogous to menstruation. There is much evidence to prove that the irritating substance is produced by the placenta, and may be regarded as a kind of internal secretion. After delivery, when the placenta is no longer present, involution of both the maternal and fœtal uteri occurs, sometimes with obvious bleeding from the latter. The breasts of the fœtus in a similar way show like changes to those of the mother, and thus explain the mammary reaction sometimes seen in newly-born children, both male and female. The male fœtus, according to the author, shows changes in the prostate as well as in the breasts, which go to prove the truth of these statements. These changes represent the physiological reaction to toxins, which may, under other conditions, act pathologically, and so the theory is advanced that the same toxins may produce changes in the kidneys, leucocytosis, increase of blood fibrin, and such a serious condition as eclampsia. In the latter disease it has been recently shown that the fœtus shows quite analogous changes in its organs to those found in the maternal organism.

Phlegmonous Dissecting Perivaginitis.

Acconci (*Rev. de Gynécol. et de Chirur. Abdom.*, September-October, 1904, No. 5). Under the above title, Acconci (of Florence) describes a case in which the whole vagina, together with the vaginal portion of the cervix uteri, was shed. The patient, who was 29 years of age, had had three children. She was suddenly seized with dyspnœa, rigors, high temperature, and general depression. These symptoms appear to have continued for at least a fortnight before the patient's admission to hospital. In hospital it was noticed that a very offensive, yellowish, blood-stained discharge escaped from the vagina. The patient was in a very depressed condition, with frequent rigors and continuous abdominal pain. A mass was passed from the vagina some days later, which proved to be the whole vagina and the vaginal portion of the cervix; the vagina had become completely inverted during its passage. From this time the patient's general condition began to improve, and she eventually left the hospital well, but with a vesico-vaginal and recto-vaginal fistula. Subsequently the vagina contracted, and menstrual fluid accumulated in the uterus. Attempts were made to keep a permanent opening through what had been the vagina, but as these were unsuccessful, the uterus was removed per abdomen; the vaginal fistulæ were also successfully repaired. No bacteriological examination was made at the time of the expulsion of the vagina. The whole thickness of the vagina was expelled, and the walls of the canal were infiltrated by many micro-organisms of various sorts. Acconci has collected 29 other cases of this condition. He divides them into three groups. In the first (like his own case) the perivaginitis appears to have been primary; in the second it developed during the course of enteric fever or pneumonia; and in the third it was the result of local treatment by perchloride of iron. The majority of cases belong to the first group. Death resulted in five out of 30 cases. In all the cases that recovered there was more or less trouble from occlusion of the vagina. In all cases the vaginal portion of the cervix was expelled with the vagina.

An Unusual Ovarian Condition.

Lewis (Schooler), (*The Amer. Jour. of the Med. Sciences*, October, 1904, No. 391). The patient was *æt.* 24, and before admission for pain and swelling in the left side had always had good health. She was the mother of two children. After being in hospital six days, her abdominal cavity was opened, and the spleen was found black and glistening in colour and six times its usual size. It was dragged downwards by the Fallopian tube, which was twice its normal size, and adherent to it, and at the lower pole of the spleen the fimbriated extremity, ovary and spleen were adherent to each other, and the various structures were with difficulty identified. The tube was divided between ligatures and the spleen set free. About three months later she was again admitted into hospital with complete obstruction of the large intestine, which, on operation, was found to be due to extensive adhesions along the descending colon. The uterus was normal in size and position, and the spleen had lost its black colour. The patient recovered. A blood count showed no anomaly, and there was no history of malaria.

Vesico-vaginal Fistulæ following Hysterectomy for Carcinoma Cervicis Uteri, with special reference to their origin and closure.

Sampson, John A. (*Johns Hopkins Hospital Bulletin*, September, 1904, No. 162).

1. The anatomical relation between the cervix and bladder is such that the anterior extension of carcinoma cervicis uteri soon invades the bladder-wall, as shown by (*a*) vesico-vaginal fistulæ, which may occur in the advanced cases, and result from the necrosis of the growth which has invaded the bladder-wall; (*b*) accidental injuries to the bladder occurring during hysterectomy for cancer of the uterus; (*c*) cystitis following these operations, demonstrating that the operation must be considered an accessory etiological factor in its origin.

2. The surgeon who attempts to separate a carcinomatous cervix which has become adherent to the bladder usually (*a*) leaves cancer tissue behind, and the disease returns; (*b*) so injures the bladder-wall that a vesico-vaginal fistula may form, which, if recognised and repaired at the time, is apt to fail to unite, because the fistula is situated in a portion of the bladder-wall whose outer coats have been torn and whose blood supply has been injured by the operation; (*c*) if he does not produce a fistula, the injured portion of the bladder may be unable to resist infection, and a severe cystitis may result.

3. On account of the above, if the cervix is adherent to the bladder the adherent portion of the

bladder-wall should be excised, in order (*a*) that a wider excision of the primary growth may be obtained; (*b*) that the injured bladder-wall may be repaired, for one may then unite healthy bladder tissues together, and so feel assured of a successful repair of the injury; (*c*) that the bladder may be better able to resist infection, for the portion weakened by the operation has been removed.

4. Post-operative vesico-vaginal fistula may occur (*a*) from undiscovered accidental injuries to the bladder, or the failure of the repair of the injuries recognised at the time of the operation; (*b*) from the intentional formation of such fistulæ at the time of the operation in order to relieve intra-vesical tension and give the bladder a rest, and also in order to minimise the dangers of post-operative cystitis.

5. Frequently post-operative vesico-vaginal fistulæ close spontaneously. This may take place in a short time, as a few days or weeks, or may require as long a time as six months or a year; on the other hand, some never close.

6. Apparently the early operative closure of such fistulæ, unless in healthy bladder tissue, is difficult, and operative measures should not be undertaken until the tissue has had a chance to regain its natural blood supply. One should probably wait at least two months before undertaking such steps.

7. The radical operations for cancer of the uterus diminish the sensibility of the vagina and bladder to pain, so that post-operative vesico-vaginal fistulæ may be closed without the use of a general or local anæsthetic.

8. The following principles should be applied in the closure of these and all vesico-vaginal fistulæ:—(*a*) Approximation without tension; (*b*) a long area of denudation exposing healthy bladder tissue; (*c*) accurate approximation with inversion of the bladder mucosa; (*d*) tying the ligatures so as not to strangulate the tissues.

9. Very fine silver wire, fastened by means of perforated shot, forms a very satisfactory suture material, and if a small piece of rubber tubing is placed between the shot and the vaginal mucosa, a most efficient "splinting" suture is formed, which, through the elasticity of the rubber tubing, maintains accurate approximation without strangulation.

OPHTHALMOLOGY.

New Conquests in Ocular Therapeutics.

In the November, December, and January numbers of the *Ophthalmoscope*, that advanced ophthalmic therapeutist, Darier, has a paper on the above subject. The headings are:—"Intravenous and Subconjunctival Injections of Salicylate of Soda," "Iodide of Potassium and Cataract," "Iodide of Sodium and Glaucoma," "The Ocular Lymphagogues, Dionine, Chloride of Sodium, Alcohol, etc.," "Serum Treatment of Infective Corneal Ulcers," "Another New Painless Silver Salt," "Stovaïne, a New Anæsthetic," "A Few Words on the Analgesic Properties of Radium."

Darier administers mercury almost always intravenously in the form of the cyanide. Since August, 1904, he has been using salicylate of soda in rheumatic affections in a similar manner. His formula is: Sodæ salicyl. gr. 2, caffeine 0·20 gr. sterilised water 10 gr., 1 to 3 c.c. injected daily into one of the veins at the bend of the elbow. He has got rapid improvement in iritis, grave iridocyclitis, keratitis and scleritis, which had proved rebellious to many remedies. He enjoins, however, that this method should not be resorted to in the first instance, but held in reserve as an ultimate and most valuable resource. He next discusses iodide of potassium as a solvent of lenticular opacities, and mentions specially the results obtained by Dr. Verderau (of Madrid), who cleared opacities of the lens in several cases by the subconjunctival injection of iodide of potassium. He refers to the remarkable results obtained by himself and by Schiel in glaucoma by the subconjunctival infection of sodium iodate. In slight traumatic injection of the cornea, he invariably instils one or two drops of a 5 per cent. solution of dionine, and prescribes the following collyrium: Dionine 0·10, cocain hydrochlor. 0·10, solution of cyanide of mercury 1·1000 10 gr., one drop to the eye 6 to 12 times a day, and if the corneal infiltration be not arrested by the following day he injects subconjunctivally sodium chloride or iodate solution, or else diluted alcohol (15 c.c. rectified spirit to 85 c.c. distilled water). In cases of more serious corneal infection he recommends "copious injections" of cyanide of mercury 1·2000. He uses cocaine to render subconjunctival injections almost painless. Serum therapy he has employed with beneficial results, and prophesies a great future for this method of treatment. He used 15 to 20 c.c. of Roux's anti-diphtheritic serum in several cases of infective ulcer which had resisted subconjunctival injections, paracentesis and galvano-cautery, and also in several cases of pseudo-membranous conjunctivitis, getting a "cure" in every case. In one case only the cornea was entirely destroyed, "because the injections were stopped too soon in presence of an apparently rapid cure." He is enthusiastic in his preference for the organic salts of silver (especially argyrol) to the nitrate in all cases in which the latter has been hitherto the time-honoured remedy.

British surgeons are slow in being converted to the intravenous and subconjunctival methods of administering drugs, and *apropos* of this, J. Ackworth Menzies, in an article on "Old and New Remedies in Ophthalmic Practice" in the December *Ophthalmoscope*, is scathingly sarcastic in his condemnation of these methods. He relates an answer of Sir Douglas Maclagan to a student who had recommended hypodermic injection of morphia as part of the treatment of belladonna poisoning. "Why a hypodermic?" he said; "there's no hurry. Remember the natural channels. There is far too great a tendency on the part of the young medicine of the present day to rush to the hypodermic needle." [Argyll-Robertson used to say, with a dry smile, in reference to the Continental plan of giving strychnine hypodermically in optic atrophy, that the only advantage (!) of this method was that it compelled the daily attendance of the patient (with a fee each time).]

The Present Status of Cervical Sympathectomy for Glaucoma Simplex.

R. G. Loring (in *Knapp's Archives* for September, 1904). Up till that date about 150 cases had been recorded, and yet nothing definite had been proved, though most of the cases had shown a temporary improvement. In acute and chronic inflammatory glaucoma it is generally conceded that the operation has nothing to recommend it as a rival to iridectomy. In glaucoma simplex, however, the matter is different. Here iridectomy generally fails, and in some cases does actual harm in rapidly lessening what vision remains. A considerable number of patients with glaucoma simplex have had the ganglion excised, but still the last word has not been spoken. In most of these (60 recorded) there was a more or less striking immediate improvement. But when one rules out those cases that were reported without subsequent observation of some weeks or months at least, the verdict is not so favourable. Many cases suffer a relapse, and the vision becomes as bad as before the operation or worse, or a glaucoma simplex may rapidly develop into an acute glaucoma. (This happened in four of the 60 cases.) Considering the bilateral *versus* the unilateral operation, the comparison is clearly in favour of the bilateral. Loving concludes by allowing that sympathectomy is a distinctly justifiable operation that ought to be more often tried in glaucoma when—notwithstanding myotics, iridectomy, and sclerotomy—the disease progresses steadily towards eventual blindness. In effect, it is a sort of forlorn hope—a *dernier resort.*

Parinaud's Infective Conjunctivitis.

In the November *Ophthalmoscope* abstracts are given of cases of this rare disease, recorded by Jocqs, Darier, Sterling and McCrae, Matys and Stratford. The details of all the cases correspond closely to Parinaud's original description, which is as follows:—The conjunctiva is the seat of red or yellowish vegetations, semi-transparent at first, becoming opaque later, and sometimes reaching the size of a very large pin's head. Beside these fleshy granulations there are smaller ones, quite yellow, which at first suggested to Parinaud tuberculosis of the conjunctiva. The cornea seems to have no tendency to become affected. There is some mucous secretion with fibrinous deposits, but no real suppuration. The eyelids are swollen, firm to the touch, and present irregular nodosities. There is but little tenderness of the conjunctiva, and the glandular engorgement is rather indolent. The disease is eminently infectious and always causes suppuration of glands. It is almost always unilateral and appears to be communicated to man by animals. The glands affected are the preauricular, submaxillary, and the cervical. Sterling and McCrae express the opinion that the infective microbe is either a virulent form of the B-Xerosis or an attenuated variety of the Klebs-Löffler bacillus. Stratford points out that a similar, if not identical, disease is found amongst the coolies employed in the tea gardens in Upper Assam. He believes that contagion may very possibly pass to human beings from the native dogs, of which many suffer from mange. Flies are also mentioned as a source of potential infection. The disease is most prevalent at the beginning of the rainy season—that is to say when insects are most numerous and troublesome. After trying all the usual remedies without avail, Jocqs resorted to light galvano-cauterisation, followed by mitigated copper sulphate. The case was cured in two months. Darier also recommends the galvano-cautery.

Cure of Trachoma by Radium.

Herman Cohn, of Breslau, reports in the *Berliner Klinisch. Wochenschrift* of January 2nd the rapid cure of three cases of trachoma by exposure to radium. He used 1 m.g. radium bromide in a glass tube 3 c.m. long by 2 mm. in diameter, with daily exposures of from 10 to 15 minutes. The trachoma had resisted various methods of treatment. No trace of injury to the lids or to sight remained. Pardo, of Turin, had previously reported two cases of trachoma cured by radium.

Injuries to the Eye from Particles of Aniline Copying Pencil.

In the January *Ophthalmic Record,* Morison Jay records two cases of injury by this substance. Other cases have been recorded by Praun, Bock Netausen and Kauffmann. The ordinary copying or indelible pencil is said to contain, besides graphite, a small quantity of tallow and an aniline dye, usually methyl blue or violet or gentian blue. The symptoms when a particle gets into the eye are severe pain and photophobia, with inflammation and œdema of the conjunctiva and œdema of the lids. The conjunctiva and cornea are stained and vision lowered. The staining may last a long time, a month or more. Around the pustule the conjunctiva or cornea is ulcerated, and in one case a symblepharon formed. Diluted peroxide of hydrogen was used successfully by Praun to assist in the removal of the stain.

In the *Ophthalmoscope* for November, 1902, an abstract of a paper by Arthur Gräflin on the effects of aniline colours on the eye is given. Dusted into rabbits' eyes, crystal, violet, Victoria blue, and malachite green produced panophthalmitis, while prëin, saffranin, auramin, rhodanin, caused conjunctivitis and keratitis, methyl blue irritated the conjunctiva. Congo red, tartraxin, eosin and water blue gave rise to no irritation. These experimental results were confirmed by an examination of 77 workers in aniline colours who suffered from inflamed eyes. Of these, some 36 had keratitis and 41 conjunctivitis, and they had worked in material belonging to or closely related to the first group. However, such severe cases of keratitis as led to the loss of the eye in rabbits were not observed in man.

NEUROLOGY.

Comparative Psychiatry.

It was announced last year that Kraepelin intended visiting Java with the object of studying the forms of insanity to be found among the races there. In the July number (1904) of the *Centralblatt fur Neruenheilkunde* he gives the conclusions he arrived at. It is interesting to read that he found no single case of general paralysis among the natives, although syphilis was fairly common. The natives do not use alcohol, therefore he found no cases of alcoholic insanity. He does not consider the Amok of the Malays as a special form of mental disease; he considers it the common expression of a desire "to do something" occurring in perturbed minds. He sees no reason to think that the natives of Java are subject to forms of insanity unknown to Europeans; but he was struck by the fact that racial peculiarities have a great influence in modifying the various forms. This is also, though to a less extent, noticeable in a study of mental disease in the different European nationalities.

Homologies of the Polandic Region.

Campbell (*Review of Neur. and Psychiatry*), Vol. 3, No. 1, Jan., 1905) discusses the homologies of the Rolandic region. The author has previously by very careful histological examination of the cortex cerebri helped to throw considerable light on the position and limits of the various functional areas. He has found, for instance, that the histological structure of the arm area differs in some respects from that of the leg area, etc. He has now applied this histological method to the determination of the vexed question of the homology of the sulcus Rolandi of human anatomy with sulci in lower orders. It has been held by many that the sulcus cruciatus of the Carnivore brain was homologous with at least the upper part of the Rolandic sulcus of man. Campbell finds, however, that histological evidence lends no support to this view. He finds that the evidence he has obtained points almost conclusively to the fact that it is the compensatory ansate and coronal sulci which are the predecessors of the Rolandic. Furthermore, he has investigated the position in man of the homologue of the sulcus cruciatus. He finds it on the mesial surface, below, and slightly in advance of the upper end of the sulcus Rolandi. It is almost invariably present, sometimes well marked, sometimes represented by a mere dimple.

Regeneration in the Brain.

Borst, as reported in the *Neurologisches Centralblatt* (Dec., 1904), has made an interesting experiment on regeneration of nerve cells and fibres in the substance of the brain. The reviewer (Bielschowsky) considers that an absolute proof has for the first time been given of the absolute regeneration in the rabbit's brain of nerve fibres. Borst used half-grown rabbits. He introduced pieces of hard celloidin, through which he had bored many holes with a needle, into their brain substance. He found after some weeks that any small areas of softening which may have been produced as a result of the operation were usually filled up with pure neuroglia—*i.e.*, the connective tissue of the blood-vessels took no part in the formation of the new tissue. The most interesting and important observation was that inside the pores of the celloidin, after a time, new nerve fibres were found passing through new glia formation. The observer concluded that new nerve fibres were only developed where new glial tissue had been laid down, or developed *pari passu* with it. He never found new nerve fibres in a situation where, for one reason or another, connective tissue had played the chief *rôle* in filling up a small cavity. He also found no evidence of regeneration of nerve cells.

Binocular and Stereoscopic Vision.

Harris (*Brain*, Spring, 1904) gives some interesting facts in his paper. There is complete crossing of the optic nerve fibres in all fish, amphibia, reptiles, and birds. Binocular vision is associated with flesh-eating propensities, and is found therefore in predatory fish, flesh-eating amphibia, and birds of prey. In mammals it is present in the primates as well as in all flesh eaters. In animals below mammals, in spite of binocular vision, no stereoscopic vision can take place because of the complete crossing of the optic nerves; and in these animals also macular vision is but little developed. In animals with laterally-placed eyes the movements of the two eyes are independent of one another. Only in animals with stereoscopic vision do we find conjugate movements of the eyeballs to the side or upwards or downwards. Movements of convergence are present in animals in which the eye movements are otherwise independent and distinct. The consensual pupil reaction is only present in the higher animals with semi-decussation of the optic nerves. Therefore in animals with total decussation the fibres from the anterior corpora quadrigemina to the nucleus of the third nerve must also totally decussate, whereas in higher animals and man these fibres only partially decussate. Harris thinks that this connection between the optic and the third nerve nucleus takes place by Meynert's fountain commissure, and that it is interruption of this commissure which gives us the Argyll-Robertson phenomenon.

Cretinism.

In the *Bericht uber die Psychiatrische Literatur* for 1903 one finds an interesting review of a paper by Weygandt on the present views with regard to Cretinism. He defines cretinism as an endemically-arising congenital condition of permanent weak-mindedness, in conjunction with an arrest of development of the skeleton and of the sexual apparatus, together with a change in the skin. A functional deficiency of the thyroid gland is to be looked upon as its immediate cause. He gives to the word *cretin* the same Latin derivation as to our word *creature*. He shows that Virchow first considered cretinism as due to an early synostosis of the basilar sutures of the skull. Its correct origin was only recognised about the years 1870-1880. It is not yet clear what is the exact condition of the thyroid gland, which leads to cretinism. Goitre is by no means a necessary attribute. Marked degeneration, with dwarfism, appears to be even more frequent with simple atrophy of the thyroid. The various thyroid changes seem to be in some way related to locality. The most marked symptom caused through disease of the thyroid gland is the developmental arrest of the skeleton. This takes place as early as the third or fourth month of life. The skull is frequently relatively large, but not infrequently the opposite in the case. With the Röntgen rays one can see that in this disease the epiphysial lines remain visible for a relatively long time. The peculiar facial appearance, with the widely separated eyes, are caused less by bone anomalies than by changes of the soft parts. The view that in endemic cretinism, as apart from myxœdema, the specific skin changes are absent is incorrect. The skin is cooler than normal, the growth of hair is deficient, the nails are badly developed, sweat is poorly secreted, and the electric resistance is raised. With increasing age this myxœdematous condition of the skin decreases; it becomes wrinkled and folded. The mucous membranes are also thickened, and especially the glands of the pharyngeal wall. The swelling of the pharyngeal tonsil is often the cause of deafness. The musculature is badly developed, and the internal organs early show signs of age. The sexual organs are stunted in growth. From a psychical point of view the majority of cretins exhibit a condition of anergic weak-mindedness. Some cases show well-marked bodily signs with but a small amount of mental weakness. The pathological anatomy of cretinism requires much further investigation. The thyroid gland shows in one division of the cases well marked epithelial atrophy, whereas in other cases the gland exhibits various forms of hypertrophy. The account given of changes in the other organs of the body shows a general tendency to degeneration. The question of heredity is not easily settled, since in localities where it occurs both mother and child are exposed to the same environment. The question as to the effect of the various geological conditions is also as yet unsolved. According to by far the most probable view, the cause is of an organic nature, and specially affects the thyroid. Why one lot of cretins have no goitre and other children with goitres in the same neighbourhood are not cretins is unknown. Cretinous neighbourhoods are improved by good sanitation, especially in regard to the drinking water, but this is of course open to various explanations. For the individual the thyroid treatment is indicated.

FOR SALE.—A Tallerman's Hot Dry Air Apparatus. Apply Agent, Post Office, South Yarra, Victoria.

TO LET.—Suite of Rooms, lately occupied by Drs. Bowker and Jamieson, 157 Liverpool-st., Sydney.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports:—Deaths of residents in the metropolitan municipalities (Sydney and suburbs) during March, exclusive of patients in the Gladesville and Callan Park Hospitals for the Insane, numbered 405. This figure corresponds to an annual death-rate of 9·2 per 1000 of the estimated mean population. Corrected by the inclusion of the metropolitan proportion of deaths in all Hospitals for the Insane and Benevolent Asylums throughout the State, the death-rate was increased to 9·9 per 1000. Diarrhœal diseases (including diarrhœa, dysentery and enteritis) caused 56 deaths, as compared with a quinquennial average for March of 79 from this class of disorders. The principal infectious diseases, exclusive of diarrhœa, caused 9 deaths, of which 2 were due to diphtheria and 7 to typhoid fever. The total mortality in this group is again very low. Two deaths occurred from cerebro-spinal fever. Deaths from phthisis numbered 31, showing about the usual monthly mortality. Cancer, with a record of 50 deaths, was very much more fatal than usual. Respiratory diseases were responsible for a mortality which did not vary from the average of that of March during the five preceding years. Bronchitis caused 7 deaths and pneumonia 16. Bright's disease was responsible for 25 deaths. A very low infantile mortality was again observed. The number of deaths registered of children under one year of age was the same as that recorded in February, viz., 102, but the number of births in March was rather larger than in February, so that the infantile mortality rate was lower (88, as compared with 90 in February). This rate of 88 infantile deaths per 1000 births is lower than any recorded in Sydney during March for the past ten years, and is 26 per cent. lower than the quinquennial average. The principal causes of infantile mortality were diarrhœa, 5 deaths; prematurity, 23; developmental diseases, 15; pneumonia, 7; enteritis, 37. Notified attacks of infectious diseases totalled 186, of which 60 were attacks of scarlet fever, 80 diphtheria, and 46 typhoid fever.

Dengue Fever.—Several cases of dengue fever have been reported in the northern parts of New South Wales, as well as in Sydney. Referring to this disease, Dr. Ashburton Thompson stated that "the disease increases with difficulty in latitudes which are not very close to the tropics. If the fever were introduced here in the midst of the summer heat it might extend to be checked with the advent of cold weather. Considering the season of the year, however, although the weather is still warm, we may fairly expect it to change at any time to a temperature at which dengue is unlikely to spread. We know there have been several cases of dengue in Sydney for some days past that have not been imported. We have been examining the blood of the patients, with the view of testing certain statements made about dengue in other parts of the world. The disease has many times been introduced here in past years to my knowledge, the first time in 1886, when it was extremely prevalent in New Caledonia, and several persons brought it over. That happened in the months of August and September, when the weather was comparatively cool, and there was then no spread of the disease."

Plague at Newcastle, N.S.W.

The infection of plague had no sooner been dealt with in those northern parts of the State which were referred to in the Gazette for February and March, than its appearance at Newcastle was reported. (1) G.P., male, *æt.* 23, who lived at home with his parents in Darby-street, Newcastle, and was employed at a large establishment for the storage and distribution of produce situated in Hunter-street, was suddenly taken ill during the evening of March 22nd, and lay at home until he presented himself at Newcastle Hospital on March 25th. He was taken in by the house-surgeon, who referred the case to the Medical Officer of Health for the Hunter River combined sanitary districts (Dr. R. Dick, M.B., D.P.H.) during the evening. Dr. Dick took liquid from a small femoral bubo which the patient presented. Smears made with it showed bacilli morphologically resembling *b. pestis*. Cultures made with it yielded pure cultivations of *b. pestis*, and a guinea-pig inoculated with it died in due course of plague. As soon as the cultures were available, he reported the case to the President of the Board of Health (Dr. Ashburton Thompson), who at once sent up a nurse with experience in plague nursing, and proceeded to set other necessary arrangements in motion. (2) A second case was notified to Dr. Dick on March 27th. W. McK., m., *æt.* 16, who lived at home on premises adjoining the produce store mentioned above, was suddenly attacked during the evening of March 25th. He had a left inguinal bubo, from which positive smears and cultures were made. He was admitted to the general hospital and isolated, together with the first patient, on March 28th. He died April 2nd and was buried in the cemetery of the Maritime Quarantine Ground at Stockton. (3) R. K., m., *æt.* 19, was suddenly taken ill on the afternoon of March 28th, and was notified to Dr. Dick, who saw him the same night. He had a left inguinal bubo, which yielded positive smears and cultures. He was isolated at the general hospital on the 29th. He worked at a large biscuit factory where about 700 hands were employed, but lived in the same street as the first case. (4) Then, on March 31st, G. M., male, *æt.* 23, was taken suddenly ill at mid-day. He was admitted to the general hospital, and was notified and visited April 2nd. He had a left femoral bubo, from which pure cultures of *b. pestis* were made. He lived in Queen-street, but worked at a marine store in Darby-street. The bacteriological diagnoses were made by the Medical Officer of Health, and at his request were checked in the laboratories of the department.

At the produce store and adjoining house with which the first two patients were connected a history of offensive smells was given, into the cause of which a carpenter had been employed to inquire, and, as soon as systematic search was made, considerable numbers of dead rats, for the most part too putrid for bacteriological examination, were discovered. Plague was identified in a few fresher carcases on March 28th, the day after notification, as well as in others at later dates. It was also found that the space between floor and ceiling of one floor was continued into the adjoining building, where case 2 had his bedroom, and there three putrid carcases of rats and one of a mouse were found. Plague rats were also found in two houses on the opposite frontage of a block containing the premises already mentioned, but no cases of plague occurred in either of them. A plague rat was also taken from a branch produce store situated near the original store, but detached from it and across a road.

The block, of which Darby-street forms one boundary, was situated half a mile or more from that just described. On cleansing it a plague rat was taken from the house in which G.P. (case 1) lived, and another from a house a few doors away. Lastly, another was identified at the marine store in this street, where G.M. (case 4) had worked. At the biscuit factory, on which a large sum had been spent during the previous year in rendering it as nearly rat-proof as possible, the closest search failed to reveal any signs of infestation, except to some slight extent in a few outbuildings of very small size. Where case 1 received the infection seems uncertain; either his house or the produce store might have furnished it. Identification of plague in rats taken at other and rather widely separated premises points to the infection having been introduced some time ago and, as usual, to its having made some progress among the rats before its communication to man drew attention to its presence. This is the more probable that the river front has been ascertained to be infected; and in this connection it is perhaps noteworthy that a drain known as Brown-street drain runs direct from the front past the produce store which occurrence of the first case brought to notice.

The measures directed were of the usual character. The Medical Officer of Health was placed in charge, and undertook in addition examination of carcases of rats; the chief sanitary inspector of the department, aided by the sanitary inspector attached to the staff of the Medical Officer of Health, and by experienced gangers sent from Sydney, supervised the labouring staff, which was in part supplied by the local authority and in part by the owners of infected premises; capitation money for carcases of rats and mice brought in by the public was offered; and a small intelligence staff was organised. Directions were given to the police to enforce strictly regulations made under the Wharfage and Tonnage Rates Act, and every precaution against exportation of plague rats was taken.

The Quarantine Hospital at Stockton was prepared for use, but so far has not been occupied, its situation on the opposite side of the river rendering it less advantageous than the general hospital in the town; but the isolation accommodation available at the latter is but small.

The last preceding case at this city, and the only indigenous case which had ever occurred there, was notified August 6th, 1902.

Recurrence of Plague at Sydney.

Recurrence of plague at Sydney after an interval of six months has to be recorded. After the last case of the preceding year had been notified on 10th September, plague rodents continued to be found in diminishing number; one was reported on October 11th, another on November 4th, and the last on December 3rd. The same active search was kept up nevertheless, and until January 18th it was thought that Sydney was free from the infection. In the meantime the outbreak on the Clarence River had occurred, and on the last-mentioned date plague rats again began to be discovered, three having been then taken at the extensive wharves used by the coastal vessels which traded between Sydney and the Clarence. There is little doubt, therefore, that, as on former occasions, the epizoötic had been extinguished, and that the rats referred to had been reimported from the Clarence. Strenuous efforts were at once made to get rid of the infection once more; but the rotten state of the wharf line involved was very much against success. *Apropos* of this point it should be noted that the Government has recently placed at disposal of the Harbour Trust an unspecified sum of money for furnishing this wharf line, where all our epizoötics have commenced, with an impermeable concrete face; but it has not been announced that the full sum known to be necessary, namely, about £90,000, has been provided. Capitation payment for rats and mice, which had ceased on December 31st, was again authorised immediately by the Government, and under the direction of the Department of Public Health the intelligence-staff of rat-catchers, which had never ceased work, was reinforced. The City, within which the infected area stood, also reorganised an intelligence and cleansing staffs under direction of the Medical Officer of Health (Dr. W. G. Armstrong, M.B., D.P.H.). During the next two months plague rats were found at seven wharves on the eastern frontage to Darling Harbour, and lately others have been found at four buildings situated either in Sussex-street, on which the wharves back, or in other streets very closely adjacent to them. Some spread of the epizoötic is thus shown, although it appears to be well under restraint.

The usual result followed in due course. The first case of plague in man was notified on March 16th from a produce store in the neighbourhood referred to; a second on April 5th in the person of the caretaker at a two-up school, who is known to have been familiar with a rat-catcher (mentioned below), and who doubtless frequented infected wharves in his company, although precise evidence of this has not yet been got; the patient appearing to have reason for not revealing his exact movements of late. The third case was notified on April 6th; it occurred in a woman who lived close to the wharf line, and a plague mouse was taken from her house the day after notification, which was on April 6th. The fourth case was notified on April 8th in a labourer known to have been employed at infected wharves; he had been attacked on March 27th and admitted to the Coast Hospital soon afterwards. His case gave rise to no suspicion until the date mentioned, when the plague bacillus was recovered by cultivation from matter taken from an eruption of "boils" which had made its appearance. The fifth case occurred to a member of the rat-catching staff who had handed in plague rats, and who had passed through another attack of plague in 1900; it was notified on April 8th, his illness having begun the previous day. Lastly to the date of writing, a sixth case in a newsboy who was chiefly occupied on the wharves, and who delivered papers on the Newcastle steamboats, was notified on April 10th. He had been attacked on April 9th in the evening.

We understand that the President of the Board of Health (Dr. Ashburton Thompson), under whose direction the measures for coping with the outbreak are being taken, hopes that the rapid succession of cases above described does not necessarily betoken a serious outbreak; and, doubtful though the prospect must be, his experience in the past warrants hope that this opinion may be justified. He is inclined to think, however, that some condition extra to the rat probably determines the greater or fewer number of cases which occur in different outbreaks, all of which are managed in the same way, as well as the extent of the epizoötic; and if this be so, manifestly forecasts can be made only with reserve until that condition shall have been precisely identified. Can it consist in the less or greater abundance of fleas?

C. J. Hewlett & Son have been awarded a gold medal for their standardised tinctures, drugs, and pharmaceutical preparations at the Capetown International Exhibition, 1904-5.

Tasmania.

Health of Hobart.—At the meeting of the Board of Health last month the half-yearly report of the City Health Officer was presented. The report states that the population of the city is 24,654. The death rate was equal to 6·81 per 1000 for the half-year. The annual death-rate for 1904 was 14·96 per 1000 of the population living, as against 14·64 for 1903. The number of births registered for the half-year was 382—males 191, females 191. The birth-rate was equal to 30·18 per 1000 per annum, as against 29·15 for 1903. There were 107 deaths registered in the year of infants under 1 year of age, 84 of these having occurred during the first six months of the year. The number of deaths per 1000 births was 144, as against 158 in 1903. The causes of death in this class were:—Premature birth, 9; whooping cough, 4; diarrhœa, 16; tuberculosis, 4; gastro-enteritis, 10; atrophy, 12; congenital defects, 6; convulsions, 6; pneumonia, 8; want of breast milk, 5; heart disease, 4. There were 36 deaths attributed to tuberculosis in different forms during 1904, or 9·7 per cent. of the total deaths. Eighteen cases of scarlet fever occurred during the year, of which six were during the last half-year, with one death. Forty-seven cases of typhoid in the year, of which 11 were during the last half. There were six deaths from typhoid, equal to 12·76 per cent. of the cases reported, and 2·4 per 1000 of the population. The incidence of all infectious diseases, especially of typhoid fever, has been exceptionally light during the latter half of the year, comparing very favourably with past years. No epidemic of infectious disease has occurred. An exhaustive inspection of the whole city resulted in the service of a considerable number of notices for the removal of nuisances and the correction of sanitary defects. The city is in consequence in a far better sanitary condition than at the end of 1903. The dairies and cowsheds show improved conditions resulting from the compliance with notices. The by-laws as to registration of milk purveyors have been enforced. The system of open street gutters, conveying offensive fluids, continues to form a difficulty in proper sanitation and a danger to public health. Unfortunately, the evil cannot be remedied until such time as underground drainage has been completed. The board must soon meet the need of a fresh tipping ground, or other means of disposal of refuse, the use of a destructor being by far the safest and most effective. The demolition of certain insanitary and dilapidated dwellings has brought into prominence the very great and pressing need for the provision of dwellings for the poorer classes. Serious overcrowding, with consequent danger to public health, is already resulting from this need. The matter is one of great urgency, since the choice is between allowing insanitary cottages to be inhabited, or overcrowd other cottages, either action being a danger to the public health, and, taken in connection with the fact that the city possesses no hospital for infectious diseases, the existing conditions may well occupy the serious attention of the board. The water reserve and catchment area cannot rightly be termed a "water reserve," since free public access is allowed to it, and dwellings for human occupation are erected upon it. No restriction whatever is placed upon the public in the matter of access to the area, and thousands of tourists, with many horses and dogs, are permitted the free run of the whole catchment ground. Means are under consideration by which the water may be protected by piping, but if this area is to be permanently regarded as a public park, and if dwellings and sanitary fixtures are to be erected upon it, the water collected from it should cease to form part of the city supply. During some 27 weeks of the year a crusade against rats was made, and 12,223 destroyed. This work was carried out by the local board, in conjunction with the Government and the Marine Board. The cost to the local board was £48 19s 10d. It is to be regretted that this work has been stopped. Rats are great carriers of disease, and they are rapidly increasing in the city.

New Zealand

Vital Statistics.—The number of births registered as occurring in the four chief cities and their suburbs during the year 1904 was 5970, as against 5812 for the previous year, the birth-rates per thousand of mean population being—Auckland City, 31·08; Wellington City, 26·77; Christchurch City, 27·53; Dunedin City, 22·40. The birth-rate for the whole colony last year was 26·94 per thousand. The deaths registered during the period were—Auckland and suburbs, 581, or 10·43; Wellington, 580, or 10·43; Christchurch, 540, or 10·44; Dunedin, 683, or 11·82. The chief causes of death in the four cities and their suburbs were zymotic diseases, 202; constitutional diseases, 496; developmental diseases, 234; local diseases, 1223. The mortality from tubercular diseases for 1904 was 10·86 per cent. of the total deaths at the four centres of population and their suburbs from all causes. Deaths from cancer rose at the chief towns from 179 in 1903 to 184 in 1904. The latter number is 7·72 per cent. of the deaths for the year from all causes. The deaths from local diseases were 44 less than in 1903. The diseases of the nervous system amounted to 273. Diseases of the circulatory system show 272 deaths from heart diseases and other allied complaints. Diseases of the respiratory system show 268 deaths. Diseases of the digestive system show 100 deaths from enteritis. From appendicitis 16 deaths are noted.

Queensland.

Plague.—Dr. Ham, Commissioner of Public Health, reports for the two weeks ending Saturday, April 8th, 1905:—Plague in man.—A man, 25 years of age, a resident of Spring Hill, City, and an employee in a shop situated in Brunswick-street, Fortitude Valley, was certified to be suffering from plague, though, fortunately, of a mild form, on the 1st instant, and was removed to the Colmslie Plague Hospital on the 3rd idem. Number of cases to date, 23; cases declared during the week, 1; cases discharged, nil; remaining under treatment, 1; deaths during the week, nil. Last case reported, April 1st, 1905. Rats and mice.—Rats and mice destroyed during the two weeks: Rats, 1253; mice, 214; total, 1467. Examined at Bacteriological Institute: Rats, 641; mice, 184; total, 825. Infected: Rats, 2; mice, 0; total, 2. Last infected rat found on April 6th, 1905.

UNIVERSITY OF SYDNEY.—A course of lectures on Tuberculosis will be delivered by W. Camac Wilkinson, Esq., B.A., M.D., Lecturer in Medicine, on Wednesday afternoons, at 4 p.m., commencing on Wednesday, May 3rd, at the University. Lecture I.—The Nature and Causation of Tuberculosis. Lecture II.—Pulmonary Tuberculosis, especially Early Diagnosis and Classification of Stages. Lecture III.—Treatment (*a*) Sanatoria. Lecture IV.—Treatment (*b*) Tuberculin in Diagnosis, Prognosis, Prophylaxis, and Treatment. Fee for the course, 10s 6d.

HOSPITAL INTELLIGENCE.

Royal Prince Alfred Hospital.—The annual report for 1904 states that the number of patients remaining in hospital December 31st, 1903, was 217; admitted during the year, 3287; total under treatment, 3504. Of these, 2233 were cured, 563 relieved, 174 unrelieved, 314 died, 220 remained in hospital December 31st, 1904; total, 3540. The number of beds in the hospital was 236; the average number of patients resident daily, 228; mean residence of patients in days, 27·22; rate of mortality per cent. on admissions, 9·5; number of attendances in out-patients' and casualty departments, 49,390. The total amount received from contributing patients during the year was £2432 1s 10d, as compared with £2229 0s 4d in 1903. The ambulance made during the year 40 journeys for the removal of patients. The number of typhoid fever cases admitted was 76, as against 119 during the previous year, and the mortality from typhoid was 7·8 per cent. The number of patients discharged cured was considerably the highest in the history of the hospital, and there has been a proportionate falling off in the number of cases discharged, both relieved and unrelieved, and the number of deaths was the lowest for seven years. This will be the last occasion on which a report will be presented as to the work of the hospital under its present conditions as to accommodation, as, during the coming year, it is hoped, the number of available beds will be considerably increased. There have been no changes in the honorary staff during the past year. Dr. Charles MacLaurin, M.B., Ch.M. (Edin.), concluded his first period of service of six years as hon. assistant surgeon, and was re-elected for a further term of six years. Towards the end of the year also, Drs. C. Purser (hon. physician), F. A. Bennet (honorary physician for diseases of the skin), G. T. Hankins (honorary surgeon for diseases of the ear, throat and nose), A. E. Mills and Sinclair Gillies (hon. assistant physicians), all completed their first terms of office of six years in their present positions, and were re-appointed. During a considerable part of the year Drs. Scot-Skirving and Hankins were absent on leave in Europe, and their duties were performed by Drs. A. E. Mills and H. Russell Nolan respectively. During the first six months of the year, pending the appointment of a permanent successor to Miss McGahey, the duties of matron were discharged by Miss E.L. Hunter, the senior Sister of the hospital, who, however, in July last, resigned from the position and from the staff, after 14 years' service. The new matron (Miss Newill) arrived to take up her duties in July last, and during the six months of her connection with the hospital has in every way fully justified the high hopes formed of her as a superintendent of nurses and an administrator. As it became evident to the Board that the system of a post-graduate or fourth year of training for the nurse was not working satisfactorily, it was decided that the fourth year for nurses be discontinued, leaving the nurses free to obtain a midwifery training at their own free will, but retaining, as part of the ordinary course for nurses who may be selected to remain as senior nurses after their third year, the training in dispensing and instruments. During the year Mr. John Keep and Mr. H. S. Levy resigned from the Board of Directors, and Senator J. T. Walker and Dr. P. Sydney Jones were elected in their stead. During the first half of the year the chairman (Professor Anderson Stuart) was absent on leave in Europe and America, when he took the opportunity to inspect a large number of hospitals with a view to the furnishing and equipment of the wards and operating theatres in the new Queen Victoria Memorial Pavilions on the most modern principles. As a result of his experiences abroad he has assured the board that he sees no reason for wishing to change one feature of the plans of the pavilions. The erection of the new Queen Victoria Memorial Pavilions is now proceeding rapidly. Parliament has during the session just closed voted a sum of £18,000 towards the work, and this—making with the amounts previously voted a total of £73,000—is expected to be sufficient to carry it to completion. Owing to the need for some of the apartments of the new pavilions, especially the dispensary, the Government architect in October last handed over the two basements, with a special ward on each of the ground floors. These apartments were taken possession of, and the official opening of the pavilions by his Excellency the Governor and Lady Rawson took place on October 20th. The work done to the buildings of the hospital during the year, other than that in connection with the new pavilions, has been comparatively slight. It has consisted mostly of repairs and alterations to the existing pavilions. Other works of an important and more or less urgent character are to be carried out during the current year. It has been decided that the lighting of the hospital shall be provided, as at present, by gas, and that the new pavilions shall be heated by steam radiators. Two 96 h.p. boilers are to be obtained, and the steam for heating, cooking, sterilising, and laundry or other machinery will be conveyed to the various pavilions and other parts of the hospital by underground conduits. The anticipated cost of this work will be about £1975. In addition, the Board has decided to have the ways leading from the administration and operating blocks to the C and D pavilions roofed and sheltered on one side, as the present necessity for carrying patients in the open in all weathers has many disadvantages. The cost of this work is estimated at about £420. Two shelter houses in the grounds for the use of patients are also to be erected at a cost of £240, it having been found very necessary to provide some accommodation for convalescent patients, outside of the wards and verandahs. It will also be necessary to spend a sum of £200 in altering the present emergency ward and the old dispensary apartments, and adapting them for other purposes for which they have been designed. *Finances.*—The total receipts for the year amounted to £21,119 13s 11d, of which £13,749 7s was received from the Government, and the total expenditure for the year £21,092 19s 8d, the excess of income over expenditure for the year 1904 being £26 14s 3d. On December 31st, 1903, the amount of Benefactors' Permanent Endowment Fund was £43,804 8s; during 1904 legacies received, £4189 6s 7d. On December 31st, 1904, the amount of Queen Victoria Memorial Fund collections and interest to date was £14,157 14s 4d, less expended to date, £16 16s 5d, net balance of fund being £14,141 7s 11d. There is still a debt of £1433 5s 6d against the Nurses' Home Fund.

West Maitland Hospital, N.S.W.—Last month the Premier formally opened the new hospital in the presence of a large number of residents. He said he felt satisfied that the institution deserved no second place among the hospitals of the country. Since the Government took in hand the subsidising of hospitals, the number had increased during the past ten years by 25 per cent., and the subsidies paid by the Government had increased 33 per cent. If they stopped at those figures there would be very little to claim credit for, but at the same time subscriptions of the benevolent public had increased by no less than 80 per cent. The continued efforts of the people to cope with disease increased more largely than the liberality of the Government. The number of hospitals in the State in 1886 was 66, and in 1903 they had increased to 128. The beds in 1886 totalled 1481 and in 1903 3744, and the indoor patients were 13,115 and 45,346 respectively. In 1886 the outdoor patients treated were 34,442, and in 1903 to 68,146. In 1886 the cost in buildings and repairs, maintenance and equipments was £99,198, and in 1903 £211,115. The new building is of brick, with a galvanised iron roof. There are two stories with four wards providing 50 beds. The operating theatre is one of the most complete in the State. The cost of the new building with renovating of old hospital is £10,600, of which £5000 was granted by the Government.

Brisbane Hospital.—From the 56th annual report of the Brisbane Hospital we learn that there remained in the hospital on December 31st, 1903, 209 patients; admitted during the year, 3378; total number under treatment, 3587. Of these there were discharged cured or relieved, 2958; discharged, incurable or at own request, 152; transferred to Lunatic Asylum or Reception House, 8; died, 263. Remaining in hospital on December 31st, 1904, 206. In addition, 14 patients were treated in Wattlebrae Hospital. For the first time for some years the committee are able to congratulate subscribers upon a reduction of 188 in the number of patients treated. The average length of stay in hospital was just over 22 days. Reckoning with the number of patients who were passed out of the hospital during the 12 months the mortality was 7·7 of those who survived until the third day it was 6·1. The out-patients numbered 7871, and at the South Brisbane Dispensary 541. The Hon. Dr. C. F. Marks retired from the active service of the hospital in October. Dr. G. Herbert Hopkins was appointed honorary visiting surgeon, and Dr. Alex. H. Marks was appointed honorary X-ray physician. Hon. Dr. Marks' name has been placed on the roll of honorary consulting surgeons. The Hon. Dr. W. F. Taylor is now surgeon-in-charge of the department of eye, ear, nose and throat. Drs. Page, McLean and Halford were appointed honorary lecturers to the nursing staff. Dr. Fisher resigned his connection with the South Brisbane Branch Dispensary on leaving the State. Dr. J. O'N. Mayne, for six years medical superintendent, resigned in December, and Dr. J. B. McLean was appointed to fill the vacancy. Dr. Eleanor Bourne and Drs. Calhoun and Kelly have become resident surgeons respectively of the Hospital for Sick Children, Brisbane, the Muttaburra and the Croydon District Hospitals, and are succeeded on the resident staff by Drs. W. C. Grindrod, A. H. Gibson and T. Gordon Ross. The position of matron and superintendent of nurses has been created and is filled by the appointment of Miss Bell, late of the Royal Prince Alfred Hospital, Sydney. The year opened with a debit balance of £3899 8s 11d, with all State dues received to date. A deputation of the whole committee accordingly waited upon the Home Secretary, and eventually it was arranged to advance the sum of £3000 repayable at the rate of £750 per quarter out of subsidy for the year 1905. This enabled the committee to meet their immediate liabilities. The 12 months ended with a debit balance of £3290 15s 3d, with a quarter's State dues £2123 8s 3d to come in. A debt of £3000 to the State had meantime been incurred, so there was an actual loss on the year's transactions of £267 18s 1d. The total receipts amounted to £16,441 5s 3d, and the total expenditure to £15,832 11s 7d. The State subsidy has undergone a further reduction, and now approximates 23s to the pound subscribed. The appropriation to this hospital for the current (government) year, July to June, based on figures of the preceding 12 months, is £1373 8s 3d per quarter. For the first time since 1893, and for the second time during its existence, the hospital has received a gift of land by way of permanent endowment. The first gift comprised two acres, the second 140. In conjunction with the Hospital for Sick Children the committee have entered into an undertaking with the Board of Waterworks to bear a share of the cost of a special water main for fire prevention purposes; the material is on the ground and will shortly be laid. The plaster ceilings of the original buildings of the hospital are in a perilous state, and will be removed and replaced by steel ceilings. The unsatisfactory conditions under which the out-patients and receiving departments are conducted continue to impair the work of the hospital. Increased accommodation is absolutely necessary, and is likely to entail an outlay of £800. The Convalescent Home has extended its usefulness to 545 patients during the year; the average stay of these persons in the home was 8·2 days. The impossibility of obtaining the help of a second honorary medical officer at the Branch Dispensary has compelled the committee for the present to restrict the attendance at that establishment to three days a week. At the request of the Home Secretary the committee took over the charge of those patients that remained in Wattlebrae upon the dissolution of the Metropolitan Joint Hospital Board, and have since dealt with such cases as have presented themselves. Negotiations with regard to a better system of sewage disposal have not arrived at a satisfactory issue. The project, however, is not abandoned, and better opportunity should presently offer to pursue it.

OBITUARY.

ANDREW W. NASH, M.B., C.M. (Edin.), 1886, J.P., Lambton, N.S.W.

Andrew W. Nash, who died at Lambton, N.S.W., early on the morning of the 23rd of March, 1905, was the second son of the late Dr. Andrew Nash, of Wallsend. He was born in Kilmore, in Victoria, in March, 1862. He completed his preliminary education at St. Patrick's College, Melbourne, but his efficiency in Latin, Greek and French was due in a large degree to the time devoted by his father in giving him instruction in these languages at home. His undergraduateship began at the Edinburgh University in the year 1882, and he graduated M.B., C.M. in the year 1886. After travelling through the United States of America in the year 1887 he joined his brother, Dr. J. B. Nash, in his practice at Wallsend. After this he was in Helensburg, Robertson, and Blayney, and in 1899 he took over from Dr. Stapleton the medical practice at Lambton. In this position he was exceptionally successful, especially in that he followed so eminent a practitioner. He attained success professionally, socially, and as a man of general affairs. He was one of the honorary medical officers of the Wallsend mining district Hospital, a Justice of the Peace of many years' standing, and an officer in the Army Medical Corps. His death was caused by a pyæmic condition which affected particularly the veins. When opening an accumulation of pus near the ankle-joint in a boy who had been injured in a colliery he received a minute mark on the skin on the back of the right hand, over the carpo metacarpal joint. The infection started from this point on the afternoon of the 14th of March, during the 15th the irritation began to trouble him, on the 16th the general infection became marked, and he died early on the morning of the 23rd March and in his 43rd year. During his sickness the aid and sympathy of his brother practitioners in the Newcastle district was generously extended to him, and at his funeral they attended without exception. He leaves a widow but no children. His was a noble end, and he faced it without a word of complaint.

Dr. ALEX. J. LESLIE.

Dr. Alex. J. Leslie, for many years a resident of Tauranga, New Zealand, died on February 26th.

VICTOR BLACK, M.B., C.M. (Edin.), Perth, Western Australia.

Mr. Victor Black, M.B., C.M. (Edin.), of Perth, WesternAustralia, died at Toorak, Melbourne, after a long illness. The deceased was the second son of the late Archdeacon Black, and brother of Dr. Ernest Black, president of the Western Australian Central Board of Health. He sustained severe injuries to the knee 15 months ago, followed by acute rheumatism, which compelled him to relinquish practice.

HUGH MCNEELY, M.D., M.S. (Glas.), Bowen Terrace.

The death of Dr. Hugh McNeely, of Benmore, Bowen-terrace, Brisbane, occurred on March 28th, after a lingering illness of some weeks' duration, but which culminated fatally upon a severe attack of dengue fever. He was a native of Mount Charles, Donegal, and after taking his M.D. at Glasgow arrived in Rockhampton in 1864. After a tour in the United States and the Continent of Europe he returned to Rockhampton. In 1886 he began the practice of his profession in Brisbane, and has remained here ever since. Dr. McNeely made many friends amongst the poor, to whom his services were freely given, and he was a devoted and prominent personage in the Roman Catholic community. A large circle of friends of all classes and creeds will sincerely mourn his death.

MEDICAL NOTES.

Charitable Donations.—Mrs. George Harris, of Sydney, has given a sum of £250 for furnishing one of the wards at the Royal Hospital for Women at Paddington.

Consumptives in Tasmania.—At the annual meeting of the Hobart District Nursing Association Dr. Crowther referred to the pressing need of a sanatorium, not for the consumptives of the other States, but of Tasmania alone. They did not want the consumptives from the other States, as they would be a danger. He would place an embargo on consumptives coming here from abroad.

Administration of Anæsthetics in Victoria.—At a recent inquest on a patient who had died under chloroform, administered during confinement, the Melbourne City Coroner found that the anæsthetic was called for in emergency, and was carefully and properly administered, but added that he would leave it as an open question for the profession whether the ordinary practice, which could not be followed in this case, of having two medical men present at the administration of choloroform, should not be followed in cases of parturient women.

PERSONAL ITEMS.

Dr. A. Smith Marr, formerly of Blayney, has removed to Forbes, N.S.W.

Dr. W. R. Fox has resigned his appointment as Certifying Medical Practitioner for the purposes of the Factories and Shops' Acts, Victoria.

Dr. J. W. O'Brien has resigned his appointment as Public Vaccinator for the South Western District, Victoria.

Dr. E. G. Levinge has resigned his position as Medical Superintendent of the Lunatic Asylum, Christchurch, New Zealand.

Dr. Alexander Robertson has resigned his appointment as Health Officer at Wiluna, W.A.

Dr. Critchley has resigned his appointment as Health Officer at Mount Morgan, W.A.

Dr. M. Matheson's present address is Collarendabri N.S.W.

Dr. R. W. McCredie has removed from Brewarrina, N.S.W., to Picton, N.S.W.

Dr. Eleanor Weld, after an extended absence in Europe and America, has returned to her home at Mount Barker, S.A.

A marriage has taken place, it is announced by cablegram from London, between Miss Ada Crossley, the famous Victorian contralto, and Dr. Francis Muecke, of Adelaide.

The Hon. Dr. Mackellar, M.L.C., of Sydney, who has been to England, returned to Sydney by the P. & O. liner "Moldavia."

Dr. T. Howard Morgan, who has been absent from the State for over two years on an extended tour, has returned to Brisbane.

Dr. Grace Russell, of Sydney, left for a trip to the United Kingdom by the "Omrah" on April 5th.

Dr. S. T. Knaggs, formerly of Sydney, sailed from China to South Africa on February 27th last.

Dr. C. Ayres has removed from Hamilton, Newcastle, to Keppel-street, Bathurst, N.S.W.

Dr. G. L. Bell has succeeded to Dr. Geo. McLean's practice at Old South Head-road, Waverley, Sydney.

Dr. Crooke, resident house surgeon of the Christchurch (N.Z.) Hospital, has resigned his position.

Dr. William C. Williamson, Medical Superintendent of the Parramatta Hospital for the Insane, has been appointed to act as Deputy Inspector-General of the Insane during the absence from the State, or the inability to act, from illness or other causes, of the Inspector-General of the Insane.

Dr. Gwynne-Hughes, who left Sydney last month for a tour of the Continent, was entertained by a number of friends at Baumann's Café. During the evening a presentation, in the shape of a handsome travelling bag, was made to the guest, and a similar present was given to Mrs. Gwynne-Hughes.

Dr. Craig has severed his connection with the Government Sanatorium at Rotorua, and has been succeeded by Dr. Rogers, of Masterton.

Dr. Henry De Renzi, who has been practising in Wellington for some years, left recently by the "Kaikoura" for London for the benefit of his health.

Dr. Gordon MacLeod, of College-st., Sydney, left by the P. & O. s.s. "China" on a seven months' trip to Europe.

Dr. Gatley, the Government Health Officer at Rarotonga, has been granted six months' leave of absence in order that he may visit England, and Dr. Thomas Bennett, of Foxton, has qeen appointed his *locum tenens*.

Dr. W. B. Gow, of the Mount View Hospital, Wellington, N.Z., has been appointed to succeed Dr. Levinge in charge of the Sunnyside Asylum. Dr. Crosby, at present assisting at Sunnyside, has taken charge of the Mount View Hospital.

Dr. Cooper Hardcastle was entertained at a social in the Hillgrove School of Arts on the occasion of his leaving the district. The Mayor (Alderman R. Sharp) presented Dr. Hardcastle, on behalf of the town, with a silver fruit and flower stand and a purse of sovereigns. Various public bodies were represented on the platform.

Dr. E. Wolfhagen, of Hobart, left on March 10th on a twelve months' trip to Europe.

Dr. P. Sydney Jones has been unanimously re-elected Vice-Chancellor of the University of Sydney.

Dr. James F. Harris, elder son of Mr. Frederick J. Harris, of Gawler, and a former student of the Adelaide University, obtained his M.D. degree in the University of Melbourne recently. He graduated M.B. and Ch.B. with honours in 1901 at the University of Melbourne, and since then has been resident medical officer at the Melbourne Hospital and the Women's Hospital. Dr. Harris intends to proceed to England and the Continent to obtain further experience.

Dr. Cecil Davenport, formerly of South Australia, who has been for some time in charge of the men's hospital of the London Mission at Wuchang, China, has been transferred to the Shantung Road Hospital for Chinese in Shanghai, the medical management of which is in the hands of the society.

Dr. Theodore Ambrose, lately one of the resident medical officers at the Sydney Hospital, has succeeded to the practice of Dr. Willis at Mount Magnet, W.A.

Lieut. J. MacPherson, commanding No. 3 Battery A. F. Artillery at Young, has been promoted to the rank of captain.

Dr. Shanassy, of Nhill, Victoria, has returned from a nine months' trip to the old country.

Dr. J. H. Ingham, who has acted as *locum tenens* for Dr. Shanassy at Nhill, has bought Dr. Stang's practice at Dimboola, Victoria.

Dr. W. H. Summons, late senior resident at the Children's Hospital, has been appointed resident tutor at Trinity College, University of Melbourne.

Dr. Harvey Sutton, of the Children's Hospital, Melbourne, has been selected as the Victorian Rhodes' Scholar for 1905.

Dr. Walter E. Roth, Chief Protector of Aborigines, has been suffering from dengue fever and unable to attend to his duties.

Dr. Aubrey Crawley, late of Minmi, has entered into partnership with Dr. Dunlop, of Newcastle.

Dr. Sproule, late of Port Macquarie, has succeeded Dr. Crawley at Minmi, N.S.W.

In the Supreme Court of Tasmania, Dr. J. T. Wilson, of Launceston, proceeded against Dr. J. C. Elkington (Chief Medical Officer) for £1000 damages for alleged wrongful removal from the position of officer of health for the city of Launceston. A verdict was returned for defendant.

Dr. A. W. Campbell, who for two and a half years has had charge of the Government Hospital at Nadroga, Fiji, has been appointed medical officer for the island of Taviuni, and gazetted Stipendiary Magistrate for the district. He took his M.B. and Ch.B. degrees at the Adelaide University in 1896, and shortly afterwards left for London to continue his studies. He entered the Royal Navy, and after having served a year in England, was appointed to the Australian Squadron serving on H.M.S. Royal Arthur and the Lizard. He accompanied the latter ship to China at the time of the Boxer disturbance. On returning to Australia in 1902 he resigned his commission in the navy to accept an appointment in Fiji.

Dr. Teichelman, formerly of Port Adelaide, recently with two friends and two guides made the ascent of Mount Cook, New Zealand. This is only the third time the summit has been scaled. The party spent a night on the snow-clad mountain, at an altitude of between 9600 feet and 10,000 feet.

Dr George Read was the recipient of a silver salver appropriately inscrbed and a framed address from his friends at Picton on the eve of his departure for Watson's Bay, Sydney. The Mayor (Alderman James Connellan) of Picton made the presentation on behalf of the subscribers.

An interesting ceremony was performed at the Melbourne Hospital on March 28th, when a commemoration tablet in recognition of the work performed during 42 years by Sir Thomas Fitzgerald, as senior indoor surgeon, was unveiled by Sir John Madden, in the presence of the hon. surgical and medical staff of the hospital. The tablet is placed on the west wall of the main vestibule. It is a bronze plate, bearing Sir Thomas's crest, underneath which is the inscription:—"This tablet was erected to commemorate the eminent services of Sir Thomas Fitzgerald, M.C.B., F.R.C.S.I., over 40 years surgeon to this hospital, by his colleagues on the staff, August, 1902.

Dr. Burnett Ham, Commissioner of Health, Queensland, who has been suffering from an attack of dengue fever, is reported to be making satisfactory progress towards recovery.

At the final professional examinations of the New Zealand University for the degrees of M.B., Ch.B., the following students passed:—C. G. Aickin, A. R. Crawford, W. A. Fairclough, T. Fergus, E. H. Howard, and W. M. Thomson.

ORAL SEPSIS.—"EUMENTHOL JUJUBES" (HUDSON)
MADE IN AUSTRALIA.
A Gum pastille containing the active constituents of well-known Antiseptics, Eucalyptus Globulus, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic, prophylactic, reducing sensibility of mucous membrane W. A. DIXON, F.I.C., F.C.S., Public Analyst of Sydney, after a comparative test of "Eumenthol Jujubes" and beech-wood Creasote, reports that there is little difference in their bactericidal action. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creasote." G. HUDSON, Manufacturing Chemist, Ipswich, Queensland. London Agent: W. F. PASMORE, Chemist, 320 Regent-street, W.—[ADVT.]

Messrs. Parke, Davis & Co. direct attention to their advertisement on page 12.—[ADVT.]

SURGICAL INSTRUMENTS.—Midwifery, operative, and dental. First-class order. Dyer, Portsea, maker. A bargain. Box 1235, G.P.O., Sydney.—[ADVT.]

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Ellis, L. E., M.B., Ch.M., to be Medical Officer of Manilla Hospital.

Fisher, Walter, L. et L.M.R.C.P., etc., to be Government Medical Officer at Weston, Maitland; also to be Hon. Visiting Officer to the Maitland Hospital.

Fullerton, Alexander Young, L.R.C.P. (Lond.), to be the Licensing Magistrate and Official Member of the Licensing Court for the Licensing District of Murrurundi.

Ross, A. P., L.R.C.P., to be Medical Officer of the Wee Waa Hospital.

VICTORIA.

Dyring, C. P. W., M.B., to be a Certifying Medical Practitioner, for the purposes of the Factories and Shops Acts.

Graham, E. A., M.B., Ch.B., to be Certifying Medical Practitioner, for the purposes of the Factories and Shops Acts.

Jones, William Ernest, M.R.C.S. (Eng.), L.R.C.P. (Lond.), to be Inspector-General of the Insane.

Summons, W. E., to be Certifying Medical Practitioner, for the purposes of the Factories and Shops Acts, during the absence of Dr. Embley on leave.

The gentlemen named hereunder to be Public Vaccinators for the districts mentioned, viz.:—

Dunn, Spencer Smithson, M.B., South Western, *vice* Joseph H. H. Lawrence, M.R.C.S., deceased.

Henderson, John Hunter, South Western.

SOUTH AUSTRALIA.

The following to be Medical Officers to attend to the destitute poor and aborigines within the undermentioned districts:—

Cook, F. E., M.R.C.S., L.R.C.P., Millicent.

Macmillan A. R., M.B., Ch.M. (Edin.), Naracoorte.

Wells, C. V., M.B., B.S., Corporation of Laura, district of Booyoolie, and hundred of Appila.

WEST AUSTRALIA.

Birmingham, W. P., M.D., and Darbyshire, B. H., M.R.C.S., L.R.C.P., to be Official Visitors to the Fremantle Lunatic Asylum and Claremont Hospital for the Insane.

Foster, Bryan, to be Officer of Health, Mount Morgans.

Loughran, Gerald, to be Junior Resident Medical Officer to the Perth Public Hospital.

Macqueen, A. J., to be Officer of Health, Laverton.

Miskin, Leonard John, M.R.C.S., etc., L.R.C.P., to be district Medical Officer, Kalgoorlie, and Public Vaccinator for the urban district of Kalgoorlie.

Moloney, Patrick Joseph, L.K.Q.C.P., to be District Medical Officer, Wyndham; Quarantine Officer for the Port of Wyndham, and Public Vaccinator for the urban, suburban, and rural districts of Wyndham.

Teague, Daniel Gilbert Miller, to be Officer of Health, Wiluna.

NEW ZEALAND.

Aickin, C. G., M.B., Ch.B. (N.Z.), to be Junior Resident Medical Officer at the Auckland Hospital.

Charlton, Clifton, M.B., B.Ch. (Edin.), 1885, to be Public Vaccinator for the district of Halcombe.

Crawford, A. R., M.B., Ch.B. (N.Z.), to be Junior House Surgeon, Dunedin Hospital.

Douglas, A., to be Port Health Officer at Oamaru, *vice* Dr. Barclay, resigned.

Gow, William Baxter, M.D., M.S., to be Medical Superintendent of the Lunatic Asylum at Christchurch.

Marks, J. D., M.B., to be Senior House Surgeon, Dunedin Hospital.

Thomson, M., M.B., Ch.B. (N.Z.), to be Assistant House Surgeon, Christchurch Hospital.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been duly registered as legally qualified Medical Practitioners in their respective States:—

WEST AUSTRALIA.

Ambrose, Theodore, M.B., M.S. (Syd.), 1902.

MacArthur, John Hardie, M.B., C.M. (Glasg.), 1893.

Newberry, Wm. John, M.R.C.S. (Eng.), L.S.A. (Lond.), 1871.

TASMANIA.

Gairdner, John, M.R.C.S. (Eng.), 1875, L.S.A. (Lond.), 1876.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

BARNES.—March 27th, at Mandelong-road, Mosman, Sydney, the wife of Dr. E. H. Barnes—a daughter.

BROWN.—April 2, at Brislington, Parramatta, N.S.W., the wife of Dr. W. Sigismund Brown—a daughter.

BUCHER (*née* Ockenden).—March 26th, at "Umtala," Cheltenham, Victoria, the wife of Dr. R. Bucher—a son.

CARVOSSO.—April 6th, at her residence, Wickham-terrace, Brisbane, the wife of Dr. A. B. Carvosso—a daughter.

COSH.—March 11th, at Summerlees, Elizabeth-street, Ashfield, Sydney, the wife of J. I. C. Cosh—a daughter.

HARRIS.—March 21st, at Rutherglen, Victoria, the wife of J. R. Harris, M.D.—a son.

JONES.—March 17th, at D'Eresby, Glebe, Sydney, the wife of P. Sydney Jones, jun., M.B., Ch.M., of a daughter.

ROBERTSON.—March 12th, at Kenmore, Sherwood, Queensland, the wife of Dr. W. N. Robertson—a son.

SHELDON.—March 21st, at West Hampton, William-street, Granville, Sydney, the wife of Herbert Sheldon, M.B.—a son.

VERCO.—March 24th, at Molesworth-street, North Adelaide, the wife of W. A. Verco, M.B. et B.S.—a daughter.

WEBSTER.—February 27th, at 37 Woolcombe-street, Wellington, N.Z., the wife of Dr. F. Garcia Webster—a daughter.

MARRIAGES.

O'NEILL—MONAGHAN.—January 31st, at St. Joseph's Cathedral, Dunedin, Eugene J. O'Neill, M.B., F.R.C.S.E., eldest son of Patrick O'Neill, Dunedin, to Josephine, second daughter of Dr. T. J. Monaghan, Chelsea, London, England.

ROBINSON—PATON.—March 17th, 1905, at Vancouver, British Columbia, Robert Renwick Robinson, M.D., of Trout Lake City, late surgeon of R.M.S. "Aorangi," to Eva Gertrude, youngest daughter of Theo. Paton, Essex Villa, Wardell-road, Petersham, Sydney, late of Merrylands.

DEATHS.

BLACK.—April 1st, at Larundel, Toorak, Victoria, Victor Black, M.B., Ch.M. (Edin.), of Perth, W.A., second son of the late Venerable Archdeacon Black, D.D., and dearly loved husband of Jean Kay Black, aged 42 years.

COSH.—March 21st, at Summerlees, Elizabeth-street, Ashfield, Sydney, Kathleen Mary, infant daughter of J. I. C. and L. Cosh.

NASH.—March 23rd, at his residence, Lambton, N.S.W., Andrew William Nash, M.B., C.M., J.P., Lieut. R.A.M. Corps, etc., second son of the late Dr. Nash, of Wallsend, aged 43.

RUNDLE.—March 25th, 1905, at 14 Wylde-street, Potts Point, Sydney, Emma Catherine (*née* Boswell), wife of George Edward Rundle, surgeon.

BOOKS RECEIVED.

The Naked-Eye Anatomy of the Human Teeth. 194 pages. By Thos. E. Constant, L.R.C.P. (Lond.), L.D.S. and M.R.C.S. (Eng.). Bristol: John Wright & Co. 1905. Price, 7s 6d net.

Ailments of Women and Girls. By Florence Stacpoole, certificated London Obstetrical Society: Lecturer for the National Health Society and for the Councils of Technical Education. Bristol: John Wright & Co. 1904. 238 pages. Price, 2s net.

Meals Medicinal with Herbal Simples (of edible parts). By W. T. Fernie, M.D. Bristol: John Wright & Co. 1905. Price, 7s 6d net. 780 pages.

List of the Fellows, Members, Extra-Licentiates and Licentiates of the Royal College of Physicians of London.

Social Diseases and Marriage—Social Prophylaxis. By Prince A. Morrow, M.D. New York and Philadelphia: Lea Brothers and Co. Sydney: L. Bruck. Price, 14s.

Transactions of the American Dermatological Association at its Twenty-eighth Annual Meeting, held at Niagara Falls, N. York, June, 1904. Report of the proceedings by C. J. White, M.D., Sec. New York: The Grafton Press.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS:—

The Lambert Pharmacel Co., St. Louis, U.S.A.; Mr. W. H. Thomas, Toronto, Canada; Messrs. W. B. Saunders, Philadelphia; The Editor, "Advanced Therapeutics," New York; Dr. E. D. Aubin, Thames, N.Z.; Messrs. P. Blakiston, Son & Co., Philadelphia; Secretary, Smithsonian Institution, Washington, U.S.A.; Dr. L. Herschel Harris, Sydney; Messrs. Burroughs, Wellcome & Co., Sydney; Mr. L. Bruck, Sydney; Dr. F. G. Griffiths, Gundagai. Dr. Ernest Roberton, Auckland; Dr. Laurie, St. Kilda, Vic.; Dr. J. Ashburton Thompson, Sydney; Dr. Jas. Purdy, Hutt, N.Z.

AUSTRALASIAN MEDICAL GAZETTE.

THE RECENT EPIDEMIC OF INFANTILE PARALYSIS.

By B. Burnett Ham, M.D., D.P.H. (Camb.), F.R.S.I. (Great Britain), Commissioner of Public Health for Queensland.

OF the many events of the past year of interest and importance to the medical profession in general, and the Department of Public Health in particular, none occupied more prominence than the extraordinary outbreak of illness which attacked a large number of children and infants of tender age in Brisbane and other places in this State. From the information received from medical practitioners in answer to my circular letter of November last, it would appear that the epidemic was widespread, and that it was largely, if not solely, a children's disease, the greater proportion of those affected being children and infants under the age of 10 years.

The statistics and clinical reports relating to the prevalence and nature of the epidemic having been collected and collated, I have now the honour to bring a *resumé* of the same under your notice, though I regret that circumstances and official duties have prevented me from placing the matter before you at an earlier date and at a time when public interest in the epidemic was thoroughly aroused. The investigation had mainly for its objects the determining of the nature of the disease, its epidemic prevalence, its incidence on particular persons and locality, and considerations respecting its etiology and prophylaxis. But few concise and definite conclusions are, unfortunately, deducible from the information supplied me; but the evidence, such as it is, should at least prove of value for future reference and guidance. The compilation of the material so kindly placed at my disposal by members of this Branch and other practitioners throughout the State has, to some extent, been hampered by the nature of the reports received. This was especially noticeable with regard to the nomenclature, cases in the same locality, and apparently presenting similar symptoms, having been variously called "infantile paralysis," "cerebro-spinal meningitis," "anterior poliomyelitis," "cerebral meningitis," "acute spinal paralysis," "meningitis following influenza," "epidemic paralysis," etc. In the majority of cases, however, a distinction based on certain characteristics—*e.g.*, the acute and sudden onset, the rapid loss of power in the part or parts affected, the flaccid and very abrupt motor paralysis without marked disturbance of sensation, and the well determined infection in young children—were established upon so large a number of clinical proofs as to warrant the definite conclusion that the real nature of the disease was mainly *epidemic anterior poliomyelitis* or *infantile paralysis*, and not epidemic cerebro-spinal meningitis. It was not an easy matter to gather in many cases whether the acute myelitis was considered to be related to cerebro-spinal meningitis.

ANTERIOR POLIOMYELITIS.

Sex Incidence.

Sex.	Cases.	Case Incidence per cent.
M.	43	39·815
F.	36	33·354
Not stated	29	26·851
Total	108	

Age Incidence.

Age.	Cases.	Deaths.	Case Incidence per cent.	Age Mortality per cent.
1 year	8	—	7·407	—
2 ,,	29	—	26·851	—
3 ,,	28	—	25·925	—
4 ,,	10	3	9·260	30
5 ,,	7	—	6·482	—
6 ,,	8	—	7·407	—
7 ,,	4	—	3·704	—
8 ,,	2	—	1·852	—
9 ,,	1	1	0·926	100
11 ,,	3	—	2·778	—
13 ,,	3	—	2·778	—
14 ,,	4	—	3·704	—
20 ,,	1	—	0·926	—

CEREBRO-SPINAL MENINGITIS.

Sex Incidence and Mortality.

Sex.	Cases.	Deaths.	Sex Mortality per cent.
M.	8	1	12·50
F.	8	2	25·00
Not stated	7	2	28·57
Total	23	5	21·739

Age Incidence and Mortality.

Age.	Cases.	Deaths.	Case Incidence per cent.	Age Mortality per cent.
1 year	2	1	8·695	50
2 ,,	2	—	8·695	—
3 ,,	5	1	21·739	20
4 ,,	5	1	21·739	20
5 ,,	2	2	8·696	100
7 ,,	1	—	4·348	—
10 ,,	1	—	4·348	—
11 ,,	1	—	4·348	—
12 ,,	1	—	4·348	—
14 ,,	1	—	4·348	—
25 ,,	1	—	4·348	—
Not stated	1	—	4·348	—

The symptoms and course of the latter disease in its epidemic form recalled to some extent those of epidemic infantile paralysis. Of 131 cases reported up to December 20th of last year, 108 were returned as due to anterior poliomyelitis, and 23 as cerebro-spinal meningitis. Of the 108 poliomyelitis cases, only four were reported as having terminated fatally, while five of the 23 cases of cerebro-spinal meningitis died. Of three cases reported as due to anterior poliomyelitis, serum cultures from swabbings of the nasal cavities revealed in each case the presence of the diplococcus intracellularis meningitidis of Weichselbaum. I have placed a cover preparation under the microscope for your inspection. From the above tables it will be observed that the case incidence in the poliomyelitis cases was heaviest on infants from two to four years, three deaths occurring at the age of four; while in the cerebro-spinal cases the heaviest incidence was upon children from three to five years, the age mortality per cent. being greatest on children of about five years.

HISTORICAL.

The occurrence of *cerebro-spinal meningitis* in epidemic form has been well and definitely established in various parts of the world, and is not unknown in Australia; but it is interesting to note that although well marked but small epidemics of anterior poliomyelitis have been reported in various countries, including Australia, the recent epidemic of this disease in the State of Queensland is the first of any dimension in the medical literature of Australia.

In a report to the Central Board of Health of South Australia, in September, 1901, Dr. Ramsay Smith mentions that cases of cerebro-spinal meningitis had occurred at various times in various parts of the State, "but the full extent of these occurrences could not be ascertained since the disease had not been made notifiable."

In reporting an outbreak at Port Pirie in 1901, Dr. Ramsay Smith states that "the disease was true epidemic cerebro-spinal meningitis; that it began about the end of July, became epidemic in August, and in the beginning of September caused much alarm." Children and adults to the age of 30 were attacked, many of the cases being of a severe, rapid, and deadly type. He also records six cases among workmen at Bundalea in October of 1902, and further mentions an outbreak at Jamestown from July to November, 1904, among people having no connection with Bundalea, as well as the death of a nurse from Adelaide, who developed cerebro-spinal meningitis in the Jamestown Hospital.

Six cases of (?) cerebro-spinal meningitis occurred among female children at Yarrawonga, Albury (Victoria), in May and June of last year, and ten cases, five of which were fatal, among male children in the same locality. So far as is known, no cases have been reported from West Australia, but three sporadic cases, all of which were fatal, occurred at Parkes, New South Wales, in August, 1903. Dr. Ashburton Thompson, President of the Board of Health, New South Wales, has kindly supplied me with a short note of some 25 cases reported by the Government Medical Officer of Albury, N.S.W., in the autumn of last year. Attention was drawn to the circumstances surrounding the deaths of two brothers at Moruya, N.S.W., in March of last year, and which Dr. Thompson had reason to conjecture were probably due to cerebro-spinal meningitis.

Epidemic cerebro-spinal meningitis has of late years become apparently more prevalent throughout the world than formerly. The disease was first recognised in Geneva in 1805, and was prevalent in the United States of America in 1806. In 1873-4 a widespread epidemic swept over Michigan, resulting in a great number of deaths. In 1900, 747 cases of meningitis were reported to have occurred in Michigan, with 688 deaths, a general fatality of 92·1 deaths per 100 cases reported.

In the State of New York during the first nine months of 1904 no fewer than 1445 deaths were certified from epidemic cerebro-spinal meningitis alone. Epidemics of this malady have not been reported in the British Islands, though here and there sporadic cases are mentioned, and an outbreak is reported as having occurred in Ireland in 1866.

In relation to the *epidemic* form of *anterior poliomyelitis*, C. J. Painter[1] reports an epidemic occurring in Gloucester, Massachusetts, in the summer of 1900. Accurate data was obtained in 32 cases—25 males and 7 females, the youngest being 13 months and the oldest 10 years. Only one case was fatal, but the paralysis was permanent in all of the remainder. Several other American observers record epidemic outbreaks of acute poliomyelitis, in which a considerable variation from the type has been noticed. In a report given by Leegard,[2] 54 individuals were affected, the greatest number of cases being under four years of age. Of the 54 persons attacked, 12 recovered completely, 30 retained some paralysis, and 2 died.

We thus see that epidemic cerebro-spinal meningitis is a terribly fatal disease, with a mortality of 50 to 80 per cent. Epidemic anterior poliomyelitis, on the other hand, although inflicting permanent damage in the majority of cases, is but slightly fatal. Both are diseases of acute onset, occurring commonly in children, and characterised by muscular rigidity in the one case, and muscular flaccidity and loss of power in the other.

CLINICAL.

Let us briefly contrast the clinical pictures presented by the two diseases. Both are acute diseases commonly of infancy or childhood, recurring in epidemic and present in sporadic form. In cerebro-spinal meningitis the prodromal headache is characteristic, and of a very severe and continuous character. It is one of the most constant and significant symptoms, the patient constantly complaining of it, or, if a child, holding its head between its hands, and rocking to and fro, moaning or uttering the sharp cephalic cry at intervals. Mental disturbance—either active delirium or mental fogginess—is early noticeable; there is also marked muscular rigidity at the back of the neck, and a tendency to retraction of the head that is highly significant. In acute anterior poliomyelitis, on the other hand, a common history is that the child goes to bed well or with some slight febrile symptoms, restlessness, and headache, and wakes paralysed in the morning. Owing to the usual infantile age of the patient, handling of the affected limbs often provokes outcries of pain, although as a rule sensation is normal. There is also vomiting, and often diarrhœa and convulsions. The child is kept in bed for a day or two, and then it is noticed that one or more limbs are paralysed.

The character of the paralysis is always flaccid, and this, with the complete absence of tonus in the muscles affected, is in marked contrast to the peculiar rigidity in the lower limbs in the cases of cerebro-spinal meningitis. In the latter disease, when the meningitis has attacked the spine, the trunk is often held rigidly in the position of dorsal extension. The paralysis of poliomyelitis rarely extends to the cranial nerves; but in cerebro-spinal meningitis invasion of the cranial-nuclei, strabismus, and ptosis often furnish early and diagnostic symptoms. The temperature in poliomyelitis rises rapidly to 102° or 103°, and remains elevated for some days; in the meningitis cases it is frequently low or sub-normal, and always very variable. A variation is also noticeable in the pulse, and this dissociation of pulse and temperature—the sluggish pulse of 40 to 60 and a temperature above 100°—is usually manifest sooner or later in most cerebro-spinal cases. Certain other signs in cerebro-spinal meningitis are common and significant. Herpes labialis, as in pneumonia, is nearly always present. A red macular eruption, often occurring on the lower part of the abdomen and trunk, or on the extensor surface and about the joints, give to the malady its name of "spotted fever." The rigidity in the lower limbs, known as "Kernig's sign," is recorded by many observers as being present in almost every case of cerebro-spinal meningitis. An examination of the blood reveals the fact that leucocytosis is also very common. Weichselbaum's diplococcus can often be demonstrated in the nasal secretion, or in the cerebro-spinal fluid obtained by lumbar puncture, such lumbar puncture being a therapeutic as well as a diagnostic measure.

While the superficial and deep reflexes are much increased or exaggerated in epidemic cerebro-spinal meningitis, they are rapidly lost or entirely abolished in the anterior poliomyelitis.

Of the cases returned as "cerebro-spinal meningitis," further inquiries into some 12 of these cases showed that the onset was sudden in seven, severe headache in nine, rigidity of neck with retraction of head in six, and facial herpes in five. Kernig's sign was noticed only on three occasions, while paralysis of the limbs or muscles was mentioned in four cases, one had partial paralysis of the right leg, another paralysis of both legs, and three paralysis of the right upper arm. A child of three years had paralysis of all the limbs and the diaphragm. No examination of the blood for leucocytosis, or of the cerebro-spinal fluid for the specific organism, appears to have been made in a large majority of the cases. Lumbar puncture is mentioned as having been performed on three occasions. One practitioner notes the presence of diplococci in the nasal secretion of one case, but failed to find it in the fluid from lumbar puncture of another case.

The extent of the paralysis, so far as could be ascertained in the cases returned as "anterior poliomyelitis," was very striking, the amount of the paralysis during the acute stage, from 24 to 48 hours from onset of the illness, being in excess of that recorded at a later date. It was a common history to find that the child had been paralysed in all four limbs at first, but only paralysed in one leg with some weakness in the opposite leg or one arm at a later period. The seat of election seems to have been, as is usual in these cases, the muscles of the legs, the anterior tibial group being the most commonly affected. In several cases, a flail-like condition of one or the other arm with paresis of both legs is mentioned, or paralysis of one leg only with complete recovery of both arms. Paralysis of the deltoid, biceps, and extensors of the hand were also noted.

As my inquiries only extend to the end of the stationary stage of the disease, that is when the febrile stage had been passed and the transient paralysis has more or less cleared up, leaving certain muscles of one or more limbs paralysed, it would be interesting to learn and to place on record as a completion to these notes the subsequent progress of the disease with reference to the recovery of muscular power, the amount of permanent paralysis, the extent, if any, of the wasting and atrophy of the muscles, and the production of deformities. I trust much valuable information in this connection will be elicited in the course of discussion.

ETIOLOGY.

With regard to etiology, it has been observed that both epidemic cerebro-spinal meningitis and anterior poliomyelitis are found in frequent association with other *infectious diseases*, a most striking relationship existing between pneumonia and meningitis, and the latter disease with influenza.

Epidemics of mumps and meningitis have also been concurrently noted. In the epidemic form of meningitis, Scherer[3] called attention to the severe nasal catarrh at the commencement of the attack. The close relationship of pneumonia to meningitis may probably point to the lungs or respiratory tract as the invasion route. The relationship of acute or epidemic infantile paralysis to the specific fevers has been too frequent to allow of doubt that there is some significance in the connection. It has been observed to follow scarlet fever, pneumonia, influenza, measles, and diphtheria. The epidemic of poliomyelitis in Queensland in October and December of last year, and probably extending into January of this year, was preceded by a severe epidemic of influenza and an extraordinary outbreak of mumps.

A *seasonal* relationship has also been observed in various countries in both epidemic meningitis and poliomyelitis. In the former the majority of the epidemics appear to have occurred in the winter or early spring; the period of onset in the latter corresponding with the months of greatest heat. With reference to seasonal and *climatic* conditions, the effect of climate on vegetation generally is well known in this State, and this effect of climate extends also to the lower forms of vegetable life, those micro-organisms which for the most part are unicellular plants belonging to the lowest division of the vegetable kingdom. The same meteorological factors which favour the development of vegetation, and therefore of germs, which in turn give rise to disease, proceed with more energy and rapidity in hot and humid climates than in cooler ones. There is certainly a geographical distribution of disease. We know that disease is not universal but prevails over limited areas for reasons no doubt similar to those which control and limit other excesses in nature. There can be no doubt that environment produces in the individual a susceptibility to diseases which are peculiar to his surroundings. The malady had apparently no relation to sanitary circumstances or to social conditions. A careful investigation into the sanitary surroundings of the patients failed to discover anything which could throw light on this mysterious disease, although the personal hygiene of many of the children attacked left much to be desired. As the incidence of the disease was largely upon infants and children of tender years, food, and especially milk, came naturally under suspicion, and raised the question as to whether the specific cause entered the body by way of the alimentary canal. A large proportion of the cases were children attending as out-patients at the hospitals, a class notoriously ill-nourished and badly fed. Diarrhoea seems to have been a common symptom among these cases, but the gastro-intestinal irritation peculiar to patients of this class in the summer time must be kept in view.

A well-known resident of this city is reported to have been suddenly attacked with paralysis in several limbs after swallowing a very small amount of formalin (a 40 per cent. solution of formaldehyde in water) by accident. The presence of formalin, or some commercial preparation containing this preservative, is very common in the milk supplies to Brisbane. In order to study the action of formalin upon the animal economy, a series of experiments were performed at the Bacteriological Institute. Some 15 guineapigs were fed on milk containing formalin (0·1 per cent. to 40 per cent.) in quantities varying from 1 in 640 to 1 in 2560 parts to the pint of milk. A full report of this interesting investigation would be beyond the scope and limit of this paper, but the results may be briefly summarised as follows:—

Nine guineapigs died within a time extending over a few minutes to 24 hours after drinking quantities of from 1 c.c. to 5 c.c. of the stronger formaldehyde solutions in milk. Of the six animals which eventually recovered from small doses of the weaker solutions, symptoms of convulsions, diarrhœa, distension of the abdomen, spasmodic jumpings, and violent attempts at vomiting were especially marked. In a somewhat imperfect manner we were enabled to confirm the observations of Fischer,[4] to the effect that "formalin belongs to that rare group of poisons which are capable of producing death suddenly when swallowed." That small amounts of formalin when taken into the stomach are followed by a gastritis which varies greatly in character, from a mere reddening to an intense congestion of the mucous membrane, as is well shown in this pathological specimen of the stomach from one of our series of guineapigs.

The progress of the recent epidemic of infantile paralysis so far as it can be stated in general terms appears to have spread from the southern border of the State in a northerly direction. Cases were reported from Toowoomba, Ipswich, Brisbane and its suburbs, Maryborough, and Townsville.

Bacteriology has yet to prove that there is one specific organism to which anterior poliomyelitis is due. In the cases of acute meningitis the most frequently found organisms are Weichselbaum's diplococcus and the pneumococcus, but the streptococcus, the typhoid bacillus,[5] and the bacillus coli are also mentioned by observers as frequently found in association with the above. No one specific organism having been isolated in anterior poliomyelitis, it has been suggested that the primary cause is not a factor common to all cases.

PATHOLOGY.

Pathologically, anterior poliomyelitis is a disease caused by a morbid state of the blood, whether produced by bacterial or other affection. "The view that is most widely accepted nowadays is that the condition is infective in origin, and the changes that result are inflammatory in character. There is, however, much to be said in favour of the view that the process is one depending on a primary thrombosis of the vessels, and in support of this statement may be cited the rapid onset of the paralysis simulating a vascular rather than an inflammatory lesion, the limitation of the destructive process to the area of the cord supplied by a branch or branches of the artery of the anterior median fissure, and that both the acute condition with multiple extravasations of blood and the subsequent softening simulate the condition which is seen in the brain after thrombosis of the smaller vessels."[6] All observers agree that the small vessels in the affected area are thrombosed with the usual signs of inflammatory reaction, perivascular extravasation, exudation, and round-cell infiltration, etc.; but opinions still differ as to whether the thrombosis is a primary or secondary condition. In the second stage, there is necrosis of the tissues in the area from which the blood supply is cut off, and this area corresponds exactly with that of the anterior median artery. In the third stage, there is absorption of the necrosed products with contraction and cicatrisation. Batten[7] states that poliomyelitis and polioencephalitis are often associated, the anterior poliomyelitis being the commonest variety of a disease which may attack any part of the central nervous system. He suggests a classification into three main groups.

1. Polioencephalitis superior includes cases where the cerebral cortex (frontal, motor, or occipital, as the case may be) or the cerebellum is attacked.
2. Polioencephalitis inferior includes cases in which one or more of the cranial nerve nuclei are affected.
3. Poliomyelitis anterior, which is the most common, includes the instances where the grey matter of the anterior cornua of the spinal cord is affected.

PATHOLOGICAL ANATOMY.

With a *vascular* theory to explain the condition, the great frequency of anterior poliomyelitis in the lumbosacral region of the cord is easy of interpretation. The arterial supply of the cord consists of two systems, anterior and posterior. The anterior spinal artery extends the entire length of the cord at the anterior fissure, and gives off about three hundred branches, called the anterior median arteries, which penetrate the anterior fissure at a right angle to the parent trunk. At the commissure they enter the cord and, without dividing, turn toward the right or left anterior horn, ramifying to form a longitudinal chain in the grey matter.

Owing to the great length and course of the spinal arteries, the circulation is mechanically obstructed, gravity impeding both the return and supply. This is most marked at the lower end of the cord. The anterior cornua in the lumbosacral region are situated at a point most peripheral from the blood supply, *i.e.*, the blood from the vertebral artery has to traverse the whole length of the anterior spinal artery, there being but little collateral anastomosis in that part of the cord. It has also been shown that this part of the cord fails to become injected experimentally.

DIAGNOSIS.

While cases of acute encephalitis and acute poliomyelitis have been considered identical in their pathology, clinically they seem at first sharply differentiated.

The diagnosis of acute poliomyelitis is simple in the child as a rule when the paralysis is developed or developing; the acute onset, the loss of power and reflexes, the peculiar flaccidity of the limb without marked disturbance of sensation being more or less characteristic; but the diagnosis in an adult is a matter of greater difficulty, since there are other affections, *e.g.*, polyneuritis, and hæmorrhage into the spinal cord which resemble poliomyelitis at first. Later on the alteration in sensation and the spastic condition of the legs with increased knee-jerks in hæmorrhage into the cord usually enable a correct opinion to be formed.

PROGNOSIS.

With regard to prognosis, we have seen that while it is most exceptional for a child to die during the acute stage of poliomyelitis, it is also exceptional for recovery to be complete. Unfortunately, some residual paralysis mostly handicaps the little patient in one or more limbs or a group of muscles for life. As the amount of the paralysis in the acute stage is nearly always in excess of that which is present in the later stage, the more rapid the improvement during the first months after onset the better the prognosis. The amount of permanent damage may be estimated and the potentialities of recovery gauged during the first two years, for after that period very little improvement in the great majority of the cases may be looked for.

Impaired growth of the limb, lateral curvature of the spine, a tilted pelvis and a short leg, genu valgum and talipes calcaneus, were familiar enough examples of past infantile paralysis among the outdoor patients of our hospital days.

PROPHYLAXIS.

Our present knowledge of the etiology and pathology of anterior poliomyelitis does not enable us to advance any special measures of precaution or take any prophylactic means which can effectively prevent its epidemic spread. But in this respect it may be said that we are not much wiser as regards many other diseases with which we are more familiar and which are more commonly present with us.

Is this malady transported by human agency spreading by infection from person to person as in influenza ?

It was not common to find more than one inmate of a household attacked.

What are the circumstances conducive to its epidemic spread at one time and not at another ?

Is it dependent on external circumstances or upon the diminished powers of resistance on the part of the individual ?

The outbreak of infantile paralysis was diffused in its incidence as to place but not as to time. The incidence on particular localities was scarcely known before its epidemic prevalence was also discovered. Its epidemicity supports the view that the disease is infectious, using the word infectious in a sense other than contagious.

Knowing nothing of the causation of the disease, or its mode of spread, we know nothing of its prophylaxis. Although in general such protection appears to be impossible, yet we distinguish a *general* and an *individual* prophylaxis. Early isolation of the cases and closure of the schools during the epidemic were suggested.

Taking the incidence of age, the transmission through the medium of schools seemed hardly possible.

Isolation in the home of children of school age has its uses and abuses, even in the acute exanthemata, the "contacts" often showing symptoms of the disease "towards the conscientious acquirement of which nothing has been neglected."

The best prophylactic measures in the cases of poliomyelitis are those directed to individual prophylaxis making the individual as immune as possible.

Attention to personal hygiene, scrupulous cleanliness of the body, sound, wholesome, judicious food—especial attention being paid to the milk supplies, fresh air, suitable clothing, guard against chill, healthy exercise, and sufficient sleep in a well ventilated room—not only increase the powers of resistance on the part of the child, but they are measures which every parent can carry out with energy and intelligence.

TREATMENT.

I do not propose to discuss in detail the medical and surgical treatment of infantile paralysis, but may I be permitted to express just a few ideas which have suggested themselves to me in this connection.

I would recommend treatment with small doses of amyl nitrite, or some of the other *nitrites*, in the earliest stages of the disease, when the vessels of the anterior horns of the affected parts are engorged with blood and before cell degeneration has taken place, as the result of that inflammatory condition.

The microscopical appearances of the cord will vary greatly with the age of the lesion; the sections which we were accustomed to examine in our student days as well as the text-book descriptions relating thereto had reference to cases of long standing, when the acute inflammatory condition had long disappeared and a fibroid condition alone represented it. (Sections of the cord shown.)

In the large majority of cases the initial paralysis clears up, leaving more or less damage to a limb or group of muscles.

As the transient paralysis which may have affected all four extremities rapidly passes off; this would seem to indicate that cell destruction in the motor area does not go on as extensively as would appear, and that many muscles become powerless not so much from actual cell destruction as from disusage, a certain group of muscles being overpowered and placed at a disadvantage by the unopposed action of another group. Where tonus is present in normal or only partially paralysed muscles, *e.g.*, the flexors, or where the latter have regained their function, contraction and shortening takes place in these muscles, with overstretching and weakening of the extensors.

Do not take it for granted that permanent paralysis or deformities are inevitable in these cases of infantile paralysis. Deformity is more often due to posture than to paralysis.

It is obvious that a weakened set of muscles should be treated by first rescuing them from the abnormal position they have assumed. Much may be done by intelligent manipulative movements and efforts against resistance to keep the partially paralysed muscles in as good a condition as possible while recovery is taking place.

REFERENCES.—(1) *Boston M. and S. Journal*, xlvii, No. 24, (2) *Neurolog. Centralblatt*, 1890, "Infectious Diseases" Roger, p. 417. (3) *Centralbl. f. Bakt. u. Parasitenkunde*, April, 1895. (4) Fisher, *The Journal of Experimental Medicine*, Feb. 4th, 1905, (5) Ohlmacher, *Jour. Am. Med. Ass.*, Aug. 28th, 1897. (6) *Encycl. Med. Edin.*, vol. ix., p. 138. (7) *Lancet*, Dec. 20th, 1902.

(Read before the Queensland Branch of the British Medical Association.)

THE RADICAL MASTOID OPERATION. — ILLUSTRATED BY FIVE LIVING EXHIBITS SHOWING RESULT OF TREATMENT.

By G. T. Hankins, M.R.C.S. (Eng.), Hon. Surgeon to Department of Nose, Ear and Throat, Royal Prince Alfred Hospital, Sydney.

It is happily no longer necessary to emphasise at a meeting of medical men the importance of the early recognition and treatment of aural suppuration. The public still requires education in this respect, and the recent publication in the newspapers of two deaths resulting from neglected ear disease will no doubt have the effect of kindling quite a new interest in the subject.

The profession is also now alive to the importance of timely operation on the temporal bone or the advent of signs of intra-cranial mischief of acute inflammation of the mastoid, but is not so assured as to the advantage of the operation when the object is to cure chronic suppuration in the absence of dangerous symptoms. Before coming to a decision on the point, it would naturally like to know what the result of such an operation would be, both as regards the time occupied in recovery and the probable result on the power of hearing. The object of my remarks this evening is to give my own experience on these points and to elicit an expression of opinion on the part of others engaged in the same work. I have also taken the opportunity of showing five cases of recovery which, although not all as satisfactory as I could wish, show great improvement as regards results on comparing the first with the last of the series. I think there is every prospect that before long the results will so improve that it will be justifiable to operate with a view to increasing the hearing power, impaired by long suppuration which may at the time have ceased.

It also occurred to me that it might be interesting to trace the development of the mastoid operation, and to do this we need not go back beyond the latter half of the last century. Passing, therefore, over the earlier recorded operations of the seventeenth and eighteenth centuries, which are rather of the nature of surgical curiosities, we may fairly begin with the work of Sir Wm. Wilde, of Dublin. In 1853 this surgeon advocated the post-auricular vertical incision down to the bone, since called by his name, on the earliest appearance of signs of inflammation in that position resulting from aural suppuration.

By means of this operation tension was relieved, pus evacuated if present, and an opportunity afforded of examining the condition of the bone. When the latter was found softened or necrosed it was curetted, and any sinus traced to its source. In this way, no doubt, the mastoid air cells, and even the antrum, were reached without any formal operation. From this procedure arose that of drilling or trephining the mastoid in cases where imprisoned pus was suspected. In such cases the surgeon, relying on his knowledge of anatomy, tempered by his equal knowledge of the abnormalities constantly present in this region, always had a very anxious time, and was very thankful when he reached his goal in safety.

In 1883, thirty years after Wilde first advocated his incision, Schwarze published a series of 100 cases in which he had treated middle-ear suppuration by opening the antrum and syringing through the tympanum, the fluid returning through the external meatus. Schwarze's method was a great improvement on the trephinings and drillings in vogue up to this time. He operated with chisel or gouge and mallet, cutting away the bone gradually over the position of the mastoid antrum, with the cutting end of his instrument always within sight. His guide was a spot half an inch behind the posterior meatal wall on a line just below the level of the upper margin of the meatus. He cut down in a direction parallel with the wall of meatus, that is to say, inwards and forwards, and calculated on reaching the antrum at the depth of about three-quarters of an inch.

In 1892, Stacke, recognising that the initiatory trouble was nearly always situated in the tympanic attic, the antral suppuration being only an extension from that point, advocated and practised the opening of the former cavity as the first step in the operation. After reflecting the auricle and separating the membranous meatus from its canal, and pressing it forward, Stacke proceeded to remove the remains of the membrana tympani and the malleus. He then with chisel and mallet shaved away the inner extremity of the superior wall of the bony meatus, which also forms the external wall of the attic, until no bony prominence could be felt between the tegmen tympani and the superior wall of the meatus. Having thoroughly exposed to view the tympanic attic and removed the incus, a director was passed through the aditus into the antrum, and the bone of the posterior wall of the meatus excavated until the antrum was entered. Last of all the bone from the external surface of the mastoid was removed. The present radical mastoid operation is a combination of the methods of Schwarze and Stacke, with some modifications introduced by Professor Küster and v. Bergmann. The antrum is first opened by the method of Schwarze; then the posterior wall of the bony meatus is shaved down until the division between the antrum and attic is removed and the two cavities thrown into one. The ossicles are then extracted, and the outer wall of the attic cut away so as to make the tegmen tympani flush with the superior wall of the bony meatus. This is the operation popularised in Great Britain by McEwen in his work on "Pyogenic Diseases of the Brain and Spinal Cord," published in 1893. Up to this time surgeons were content to treat this cavity from the skin incision behind the ear, packing it with boric acid powder or gauze, or merely inserting a tube and allowing it to fill up by granulation, or in some cases allowing a permanent opening to remain. This was the cause of considerable disfiguration, and it has lately been found feasible to close the incision at once after opening out the membranous meatus by a plastic operation and dressing the cavity through the enlarged natural opening.

Within the last two or three years Mr. Charles Ballance, assistant surgeon at St. Thomas's Hospital, and one of the surgeons to the National Hospital for Paralysis and Epilepsy, Queen Square, and Mr. Charles Heath, one of the surgeons to the Throat Hospital, Golden Square, London, have been working on somewhat opposite lines, with a view to shortening the period of repair and maintaining a maximum of hearing power after the operation.

In all probability cases coming under these two surgeons belong to very different classes. As a general surgeon, Mr. Ballance would meet with cases where the mischief had already extended into the adjacent regions, whereas Mr. Heath, as a specialist, would secure cases of chronic suppuration before surrounding infection had occurred. Therefore Ballance aims at a wide area of operation, whilst Heath limits his external incision as far as possible.

It will be unnecessary in this paper to go into full detail of these operations; suffice it to say that Mr. Ballance denudes a large surface of the mastoid region and removes the bone in thin layers over the whole area until the cellular structures beneath are exposed. When the antrum attic and tympanum are thrown into one cavity he carefully curettes away every vestige of mucous membrane and thoroughly smoothes the walls of the osseous cavity. By a plastic operation the membranous meatus is opened out so as to line the cavity as far as possible, and the natural orifice of the meatus enlarged so as to allow of future treatment through that opening. The cavity is then packed and the skin incision closed. At the end of about a week the wound is opened, the packing removed, and a large Thiersch graft carefully placed over the whole raw surface, the skin being maintained in contact with the bone by small balls of cottonwool tied up in gauze and impregnated with aristol powder.

Finding that the superficial portions of this graft usually sloughed, and caused much suppuration and fœtor whilst separating, Mr. Ballance opens up the wound for the second time at the end of a week or ten days, and deliberately strips off the graft he had so recently placed in position. He finds from experience that during that short time sufficient epithelium had been sown on the raw surface to secure a perfect epidermal layer, and a thin pellicle soon forms over the bone, which in no way interferes with the passage of sound waves. Complete healing frequently takes place within a month. The line of skin incision is completely hidden by the hair, and the enlargement of the orifice of the meatus, which in his earlier operations constituted a considerable deformity, he has recently reduced in size, so that it is no longer noticeable.

Mr. Heath makes a comparatively short skin incision close to the insertion of the auricle, turns that appendage downwards and forwards, exposing the margin of the bony meatus. The membranous meatus is separated from its osseous canal and pressed forward with a narrow retractor. The antrum is then opened by chiselling away the superior and posterior margin of the orifice of the bony meatus, together with the posterior wall, thus keeping well forward and out of the way of the sigmoid sinus. From this starting point the attic, etc., is opened up in the usual way, but, contrary to Mr. Ballance's method, the mucous membrane of the middle ear is left intact whether it is diseased or healthy. Of course, prominent granulations and polypi are removed, but the greatest care is taken not to disturb the footplate of the stapes in the niche of the fenestra ovalis. The usual meatal flap is then made, the meatal orifice enlarged by a slit until it will admit the tip of the little finger, a short length of large drainage tube passed through it, and the skin incision closed. No packing is made use of, and the dressing through the natural opening is commenced on the day following the operation. Syringing is avoided, and swabbing with alcohol advocated instead, the tube being removed, cleaned, and replaced at each dressing. No grafting is practised, and diseased mucous membrane and any exuberant granulations are treated with caustics and astringents as occasion demands, the main object being to prevent the formation of fibrous tissue, as likely to interfere with hearing.

Whilst in London last year I had the opportunity of seeing operations done by both these surgeons, and of examining several cases after healing had taken place. No doubt the grafted cases skinned over much more quickly than those which were left to themselves; but in respect of the hearing power left after the operations, I could not satisfy myself that one was much better than the other.

Although the grafted cases got well in the shortest time, the patients were kept longer in hospital by reason of their having to undergo three different operations under an anæsthetic at intervals of one or two weeks; whereas those left ungrafted were able to leave the ward in about a fortnight, visiting the hospital daily for after treatment.

My own feeling is that both operations have their place, and the choice of one or the other will depend on many circumstances which are fairly obvious; but it must be remembered that the mastoid operation is only the first step in the treatment, and that ultimate success much depends upon the care with which the case is watched after the operation. A mastoid operation is often one of urgency, undertaken to avert immediate danger of life. In such a case one must not be deterred by the fear that the after-treatment may be inadequate; but I hold that no surgeon should undertake the operation for chronic quiet suppuration unless he is prepared to devote himself personally to the daily, or almost daily, dressing of the case. It is useless to expect nurses, or even qualified hospital residents, to do what is really necessary in such cases; they have neither the time nor the special knowledge required. Personally, I find the best plan to direct the patient as soon as he is able to leave the hospital to come to me for dressing early every morning. I thus am able to keep up a keen interest in the progress of the case, and have only myself to blame if anything goes wrong.

This leads one to the question—How long must this go on? The answer must be—Until the entire cavity is healed and quite dry. And it is often the last little spot which is so obstinate. Many a case which is *nearly well* after, say, two months' treatment may linger on for more than double that time before it is entirely well. Often a comparatively large surface has to be denuded of freshly formed cicatricial tissue in order to secure the healing of one small spot in its centre, as is the case with indolent ulcers of the leg. Frequent touching with silver nitrate or trichloracetic acid is also required in the course of the treatment. I sometimes think that the comparatively short after-treatment spoken of by some surgeons is explained, and the fact that the cases are only *nearly well* and may be left to time to dry up finally.

An examination of the cases I have brought before you to-night will show what my own results have been. The period of healing has varied greatly, and the average longer than it should have been had the personal treatment advocated above been carried out in all the cases from the beginning.

With regard to the hearing power left after operation, I think I may say that the later cases are more successful than the earlier ones; and I am confident that patient attention to the after-treatment will show still better results.

CASES.

No. 1.—B.H., *æt.* 10, female. Chronic suppuration with tuberculous sequestrum in mastoid. May 30th, 1903: Ballance's operation with large meatal opening. Grafted after some weeks by Reverden's method through the meatus. Operation followed by complete facial paralysis, which has now almost entirely disappeared. Hearing by air conduction almost nil. Complete healing only after 18 months.

No. 2.—J.D., *æt.* 24, male. Chronic suppuration with frequent attacks of giddiness. February, 1903: Ballance's operation with large meatal orifice. Grafted by Reverden's method in course of after-treatment. Complete healing in four months. Hearing not so good as before the operation.

No. 3.—C.P., *æt.* 20, male. Chronic suppuration both ears. On left side mastoiditis, with cerebral symptoms. October, 1904: Ballance's operation left ear, with small meatal opening. Pus in sigmoid groove. Sinus opened and found free. Facial paralysis after operation, which has now disappeared. October 11: Wound opened and Thiersch's graft applied. Same date right ear operated on, but not grafted. Severe attack of erysipelas, starting from right side, which seemed to be suddenly checked by antistreptococcic serum. After recovery from this the left (grafted) ear was found to be healed, namely, two months after operation. The right ear shows still one small spot unhealed, five months after operation.* A useful amount of hearing power is preserved.

No. 4.—G.B., *æt.* 10, male. Chronic suppuration left ear, with mastoiditis and cerebral symptoms. Right ear shows signs of exhausted suppuration. Hearing bad on both sides. October 24th, 1904: Operation by Ballance's method with small meatal opening. Grafted after a week by Thiersch's method. Graft removed after another week. Apparent failure. Healing complete after four months. Hearing about the same as before operation.

No. 5.—E. McN., *æt.* 11, male. Chronic suppuration both ears. November 2nd, 1904: Right ear, Heath's operation; no grafting. November 9th, 1904: Left ear, Heath's operation; no grafting. Daily personal supervision during convalescence. Healing complete on both sides after five months. Hearing power very good, having improved since operation.

* Since reading the paper this has now entirely healed (May 8th).

(Read before the New South Wales Branch of the British Medical Association.)

PUERPERAL SEPSIS.

By W. Sloss, M.B., Ch.B., F.R.C.S. (Edin.), Ballarat.

It is quite a matter of history that in 1847 two great men added much to the knowledge and practice of obstetrics. When Sir James Y. Simpson introduced chloroform in midwifery in Edinburgh, an assistant in the Obstetric Clinique of Vienna made an important discovery—the true nature of puerperal fever. This Hungarian, named Semmelweiss, noticed that one of his colleagues pricked his finger whilst making a post-mortem examination, and died of blood-poisoning. He was struck with the similarity of the symptoms between blood-poisoning and puerperal fever. In that hospital half of the women were attended by students and the other half by midwives, and great was his surprise to find that the death-rate was so much greater amongst the women attended by the students than those attended by the midwives. Semmelweiss concluded that instead of puerperal fever being a visitation at the hand of Providence, it was more generally caused by the hand of the midwife or general practitioner. He tested this by making the students use for their hands chlorine water and chloride of lime solution, and found that the death-rate amongst the women attended by the students, instead of being 10 per cent., came down to as low as 3 per cent.

Lister, later, elaborated at the Glasgow Royal Infirmary the system which has made surgery possible and sepsis almost impossible.

As students we were taught that puerperal fever was divided into three parts: First, sapræmia, the most easily treated, was the fever caused by the toxins from some local factory, such as from retained placenta, etc.; second, septicæmia, a fever due to the circulation through the system of organisms; and third, pyæmia, a fever because of metastatic abscesses, from which both toxic products and organisms are absorbed into the circulation. For all practical purposes we can divide puerperal fever into the two great divisions—sapræmia and puerperal septicæmia. Bacteriologists inform us that there are many different kinds of bacteria in the genital canal, especially in the vagina. If this be true, I should be inclined to say that they are friendly, because for my own part I have got better results when I have not used the douche than when I have washed out the scavengers. Jardine (Glasgow) says that the bacteria in the internal passages are non-pathogenic and protective. Whilst one must not regard every rise of temperature and quickness of the pulse in the puerperium as puerperal septicæmia, one must regard them with suspicion. I have come across a couple of cases recently which were entirely neurotic. One must also remember that the lying-in woman is subject to influenza, scarlet fever, diphtheria, etc. etc,, just in the same way as, or even more so, than other women.

Nathan Raw, of Liverpool, gives a list of ten different pyogenic organisms in puerperal septicæmia, but I suppose the chief ones with which we have to deal are

1. Streptococci
2. Staphylococci
3. Bacilli coli communis
4. Gonococci.

Considering the great number of women who are affected with gonorrhœa, some have argued that the gonococci, *per se*, are not very likely to produce puerperal septicæmia, and that where gonococci have been found in the discharges the fever was probably due to a mixed infection.

F. J. Tanssig (American Gynæcology, 1903), in recording five cases of puerperal infection in which gonococci were found bacteriologically in the discharges, makes a statement that "the gonococcus is the etiological factor in about one-sixth of all cases of child-bed infection." Certainly, if gonorrhœa were suspected in a pregnant patient it would be our duty to deliver if possible without any internal manipulation whatever.

One can readily understand the admission of the bacillus coli communis from the fœcal matter around the genitals.

The staphylococcus is more rare and less virulent than the streptococcus, which seems to be so tenacious and multiplies at such extraordinary rapidity; and as the genital organs are so abundantly supplied with lymphatics and blood-vessels, one can understand how the patient is killed so quickly, and also the great need for activity when these enemies invade that territory. If I had any one symptom to choose from in regard to puerperal septicæmia, while not underrating the temperature, the rigors, the expression, the pain, the quality and quantity of the lochia, the vomiting, the delirium, and the diarrhœa, I would go for the pulse. Sleeplessness is another important symptom, but the rapidity and quality of the pulse are most important.

The problem of the prevention of sepsis is practically settled so far as maternity hospitals are concerned; and as prevention is better than cure, I should like, before dealing with the treatment, to say a few words on the prophylaxis of puerperal infection.

The late Milne Murray, in his presidential address to the Edinburgh Obstetrical Society, made some startling statements, and gave figures which were really appalling.

MORTALITY FROM PUERPERAL FEVER IN ENGLAND AND WALES.

		Mean Deaths per 1000.
1847—1856	early anæsthesia; no antiseptics ..	1·8
1875—1884	anæsthesia general; early antiseptics	2·28
1886—1895	,, ,, antiseptics general	2·46

CHILDBED MORTALITY IN SCOTLAND.

	Accidents in Childbed.	Puerperal Fever.	Total.
1897	331	205	536
1898	351	227	578

Milne Murray says: "I feel sure that an explanation of much of the increase of maternal mortality from 1847 onwards will be found in, first, the misuse of anæsthesia, and, second, the ridiculous parody which, in many practitioners' hands, stands for the use of antiseptics. In a word, the use which has been made by many of two of the greatest blessings of humanity has converted them into little else than a curse."

I am not prepared to say that in every case of sepsis in the puerperium the infection is introduced through the vulva, for I doubt it; but I daresay we are all agreed that the majority of cases which become septic do so by organisms introduced into the genital canal from without, and that streptococci are not conveyed by the atmosphere. For all practical purposes the uterus and vagina are practically aseptic. The liquor amnii (an aseptic, saline fluid), the blood, the placenta, and membranes, all tend to wash out the canal from above downwards. One great source of danger is in the patient herself. The vulva is very septic, and my usual recommendation, among other things, at the time of engagement is for the patient to take frequent sitz baths. A woman will usually do this if she is told that it softens the parts and gives her an easy time. Vaginal examinations and internal manipulations are in most cases in normal labours necessary to the general practitioner. Before any examination is made I make it the practice to wash thoroughly the external genitals with my own hands. It is absurd to think that the obstetrician should do his aseptic work under the bedclothes, and therefore I say, with Jardine, "that the external genitals of the patient must be exposed to view, and the labia should be separated with the fingers of the other hand. The examining finger must not touch anything before it is introduced." Before doing this I usually wash my hands, then put on an operating jacket (few women like the jacket), then disinfect my hands with lysol, and wash the patient's externals with the same. For disinfecting the hands I know of nothing more important than hot water, soap, and a brush. If very septic, follow this with solution of potass. permanganate and oxalic acid. Corrosive sublimate is good, but astringent. Don't hurry the labour, unless necessary from the patient's standpoint. Jardine says that "in labours lasting over 24 hours the mortality is four times greater than in those lasting under 24, while in those lasting over 30 hours it is 12 times greater. A prolonged labour is therefore a dangerous one, not only from the exhaustion probably killing the patient, but because of the greater liability to sepsis from the lowered vitality of the tissues. Therefore, as soon as you find that natural efforts are not sufficient to end the labour within a reasonable time, interfere early, and do not wait until the natural efforts have completely failed."

The right management of the third stage is probably the most important part in the prevention of sepsis. If any part should be left behind, the uterus may expel it, but will probably wait until the dead tissue has become an excellent nidus for the proliferation of bacteria.

I have tried douching in normal cases after labour, but if the work is done aseptically I cannot see the good it will do, while there is also the danger of introducing germs from without as well as washing out that protective substance, which, I am convinced, is in the genital canal.

I once asked my chief—Berry Hart—what was the best thing to do with tears in the perineum. "Don't have them," said he, most emphatically. Supporting the perineum will not always act. The method of introducing a finger into the rectum may be good; but, in my opinion, if the bacillus coli communis is an etiological factor in puerperal sepsis, it should not be done. "Leave alone" was tried in the hospital until there were too many perineums to stitch. The forceps I think a very good method of keeping the perineum from tearing. A torn perineum ought to be stitched, and the best results usually are obtained by using silver wire.

After the third stage is completed I seldom, if ever, hand over the patient to the nurse until the externals are thoroughly cleansed and a clean diaper applied.

A drachm of ext. ergot is an advantage, especially if the labour has been prolonged. It seems to expel blood-clots, and in that way must do good.

The most important aid in prophylaxis is an "aseptic" nurse. While undoubtedly there are some good nurses, it has been one's experience to find, many times more than once, a very unintelligent and inexperienced attendant. Very little encouragement is given by me to those women who because of widowhood or straitened circumstances come seeking work in this direction. Ignorance being the parent of unbounded ills, I wonder if anything could be done here so that we might obtain more efficient and experienced nurses?

"In Italy the bulk of the obstetric practice is in the hands of midwives. In 1887, out of one million inhabitants, 85 died of puerperal fever. From that date a gradual diminution occurred until 1902, when only 32 succumbed per million to that disease. One of the most potent factors has been the better equipment of the midwife. Training schools exist in every town possessing a university or medical school. These are under the direction of the Professor of Obstetrics, and the cost is defrayed by the Government. Similar training schools exist in towns that do not possess medical schools, the cost of these being defrayed by the local authorities," etc.—*Lancet*, January 9th, 1904.

Should puerperal fever be notified in this country? It works well in Scotland and may be a great advantage here.

The treatment of puerperal sepsis.—Inspection and digital examination of perineum, vagina, cervix and fornices should be made, to out the cause of the absorption, and dealt find with accordingly. In one case recently, where after a prolonged and difficult labour, with much bruising inside the vulva, I instructed the nurse to use every four hours (six in all) one of Martindale's iodoform and eucalyptus pessaries. The temperature never rose above 100°, and I gave the credit to the pessaries until a few days later the nurse had arranged in a little box for my inspection the six pessaries, which never dissolved.

An intra-uterine douche of mercuric potassium iodide with a strength of 1 in 4000 or 5000, or 1 per cent. lysol, often works wonders. For safety, the former can be followed by hot boiled water. If in doubt, explore the uterus with the finger. Curettage is of doubtful benefit, because of the possibility of opening up new infective surfaces. A rigor has on more than one occasion followed an intra-uterine douche, and the reason for it, I confess, I do not understand, because in each case the patient got on remarkably well after. Quinine, 5 grains every four hours, stimulants, sedatives at night, iron, and easily digested nourishing food are all aids in the treatment. These, with the light packing of the uterus and vagina with iodoform gauze, are usually sufficient for even severe cases of sapræmia, but there are cases where even in spite of continual washings-out of the uterus and packing, the deadly effects of the toxin cannot be counteracted.

I have only had one experience of the anti-streptococcic serum, and each of the three times that 20 c.c. were injected under the skin of the abdomen the patient's temperature came down. This patient made a good recovery eventually, but I am not prepared to say that the serum alone was responsible for it. The recovery was probably due to the intra-uterine douches as well as the serum.

Nathan Raw, in advocating the use of the serum, says "that in the very nature of things it can only be of service in cases where the infection has been proved to be due to streptococci, and if it has been used in bacillus coli and other infections, we must not be surprised at failure."

He gives a list of 61 cases of puerperal fever with a death-rate of 48 per cent. Thirty-seven of the 61 cases were treated with the serum, and the death-rate was 36 per cent. Twenty-four were treated without serum, and the death-rate was 60 per cent.

He lays down three rules :—

1. Streptococci should be demonstrated by the microscope and cultures.
2. Serum should be used early in the disease.
3. The dose should be large and repeated often.

E. Bumm (*Berlin. Klin. Woch.*) believes that one is justified in giving a prophylactic injection of serum immediately after difficult deliveries, especially after manual detachment of placenta and decomposition of " the waters."

I have had no experience (and do not know personally anyone who has had) of the treatment of this disease by the provocation of suppuration by turpentine injections, nor have I had any experience of the formalin treatment. The formalin has been injected hypodermically and also per rectum. Three cases are recorded.

The Congress of Rome in 1902 expressed the opinion that hysterectomy is of very limited value in the treatment of acute puerperal infection. If the infection were limited to the uterus, and other forms of treatment had proved of no avail, one would, judging from the experience of those who have performed the operation, even then seriously consider the wisdom of such an operation.

W. R. Pryor (*New York Journal*, 1903) was " impressed with the futility of performing either a radical vaginal or abdominal operation in this condition. He curettes the infected uterus, opens broadly the posterior *cul-de-sac*, and packs the uterus and Douglas's pouch with iodoform gauze. He has operated on 37 cases, and on 36 of these streptococci have been found both in the uterus and pelvis. In all cases but one he was unable to detect a single coccus of any kind in the second dressing, and they were absent on the third dressing in the exception. The author claims that his good results are due to the fact that the serum from the uterine wound breaks up the iodoform into methyl and free iodine to a small extent, and that the serous membranes in the posterior *cul-de-sac* does so to a very large extent. The iodine is absorbed very rapidly, and a strong reaction of iodine in the urine is secured within five hours of the treatment (in certain cases within two hours). In all the operations an infusion of normal saline solution has accompanied the operation to facilitate the elimination of iodine and toxins by the kidneys."—Comyns Berkeley.

I do not think that there is anything original in this paper, but the ideas expressed are those which appeal to one, and which one endeavours to carry out.

(Read before the Ballarat Branch of the British Medical Association.)

THE PRESENT UNSATISFACTORY POSITION OF VACCINATION IN THE COMMONWEALTH.

By W. Cleaver Woods, M.D., Ch.M. (Edin.), Albury.

In reference to so important a subject as vaccination, there can hardly be two opinions regarding its present unsatisfactory position in the Commonwealth. There is an absence of uniformity for its compulsory performance throughout the States, which, as long as the States were independent of each other, it mattered little ; but in a united dependency, such as we live in to-day, it is quite impossible for compulsion to obtain in one part of the Commonwealth and for the citizens of another to have their children operated upon or not as they think fit—two conditions of such an opposite character cannot co-exist. Moreover, if not uniform in all States alike, the protection it affords against inroads of disease must necessarily be very imperfect. Hence, as it must shortly become a matter for serious consideration for the Federal authorities, I have thought it might prove of some interest to us to-day to introduce it into our deliberations. Once Federal quarantine is decided upon, the question of vaccination must follow, as the one forms a component part of the other. Compulsory in one State, and go-as-you-please in another, as we find it now, cannot find favour of a United Australian Health Authority. In Victoria we constantly see the refusal or neglect to comply with the law of compelling people to vaccinate their children within a certain time after birth attended by substantial penalties to those responsible ; whereas in this State people are answerable to no such high-handed restrictions.

In this district in which we are met to-day the River Murray divides those who must and those who need not subject their children to the inoculation. It is quite clear, therefore, that uniformity of enactment is inevitable, and there is little doubt, I think, that until protection can be reasonably guaranteed by other means, compulsory vaccination will be made absolute by the United Health Board of the Commonwealth, whenever it is formed.

If the conditions in Australia are similar to those of the United Kingdom (*e.g.*), there cannot be the shadow of a doubt that the only safeguard for all time is the time-honoured custom of infant vaccination ; any medical man hinting at its non-essential qualities in the old country might charitably be reported as a semi-lunatic. It is quite clear also, I think, that all option in the matter will be at an end under new Federal regulations, as, if made optional, it might as well be abolished altogether, as people generally will not subject their children to the inconvenient ordeal, always more or less painful, and in some, although rare, instances, dangerous to life itself, unless compelled by law—the breaking of which is attended by adequate penalties. As an instance, take Albury. What is the position to-day ? Vaccination is practically dead. Twenty years ago all infants were submitted by their parents or guardians to the Government vaccinator, with the same regularity almost as were their names to the Registrar of Births, the two processes being regarded very much alike and on equally conscientious grounds. As years went on, and people gradually began to awaken to the fact of legal option in the matter, license and laxity followed, and the state of things existing at present gradually evolved itself, so that now we may say that for some years past no inoculations have been made in this town—rare exceptions being, of course, in those about to travel outside the confines of Australia. Probably the same thing holds good in many other parts of New South Wales ; and why should it not ? It is quite natural that it should. And the same falling off would most certainly take place in Victoria if any license whatever were permissible.

It is therefore manifestly anomalous in a united country such as the Australian Commonwealth that in one part of it its people are penalised for what in another part is allowable. If it is the sole protection of the individual or the community against attacks of variola, then unquestionably it must be, and will be, made in our Federal adjustments of the health laws relating to public health, obligatory in every case.

As the subject of quarantine, which is down for early consideration among the Government measures of the next Federal Parliament, will most probably contain compulsory clauses as regards vaccination, it would be well to consider whether an insular continent, such as Australia, could not tolerate some reforms in such an inflexible law, so that other methods of protection against epidemics of variola could be employed, and vaccination, partially or wholly, done away with. The voluntarily admitting of a minor disease into the system to give immunity against a deadly form was an excellent principle long ago, and is so still where human environments make anything else impracticable, or at least risky. But in the case of our own land, with its isolated position and its limited portals, surely if the complex machinery at work in keeping out individuals of the undesirable class is successful in attaining its end, similar methods may be employed with regard to cases of undesirable diseases.

At first sight one is perhaps likely to be regarded as an "anti-vaccinationist" when such a radical change as this is suggested, but nothing could be more childish, as the question in no way attempts to deprecate, to the slightest extent, the inestimable saving effects of Jenner's wondrous discovery. But are we never to cherish the hope that, even that discovery may be some day superseded when sanitary science is making such wonderful strides all the world over ? Are we for ever to accept it as a fact that because vaccination is essential elsewhere, that it cannot be set aside in Australia ?

Let us for a few moments imagine a small isolated State, say in the middle of the Indian Ocean, with only one port of call, vaccination has been disregarded, and the people are threatened with an outbreak of smallpox by an oversea ship having cases on board. Surely sufficient protection would be afforded if strict quarantine, with its accompanying precautions against spread of the malady, were carried out intelligently and conscientiously. Would the fact of the absence of infant vaccination matter one jot ? I think not. In the same manner, such a system, apart from vaccination, might possibly be tried on a larger scale, without undue risk, the only difference being one of degree. Comparatively few large communities are placed in such favourable conditions for the experiment as the Australian Commonwealth. In the older world it would be dangerous to trust to such measures, but in Australia and the adjacent islands I quite believe that vaccination might be found unnecessary in the face of such other precautions as I have enumerated. We must, I take it, look to positive introduction of smallpox for an epidemic to occur in our midst; and if so, a perfect system of quarantine to keep it out should be all that is essential. During the last 20 years, so far as my recollection goes, there has never been an outbreak of smallpox in any of the States, or even a serious threatening of one; and, as a rule, methods of protection such as are suggested to you to-day have, I think, been chiefly accountable for the immunity experienced and the saving of the people from the seeds of epidemic, rather than infant vaccination. And yet those very methods have been sometimes inadequately applied, and additional and unnecessary risk involved in consequence. Supposing we had no outbreak for 50 years, would vaccination still be necessary? Or would its compulsion be insisted on if there never occurred say the semblance of an epidemic during the lifetime of any living to-day? In other words, is there to be no possibility of relaxing the drastic methods of compulsion under any circumstances whatsoever?

A health officer of one of the large towns of England, in one of his reports, says:—"The question will have to be considered whether, owing to the perfection of our municipal machinery for preventing the spread of smallpox by other means than vaccination, a time is not arriving when compulsory vaccination shall cease to be any longer absolutely necessary; for it is only so long as such necessity exists that compulsion remains justifiable; and whilst I fully recognise the immense and lasting utility of vaccination under certain circumstances (*e.g.*, after exposure to infection), I venture to suggest that universal compulsory vaccination need only be regarded as a temporary expedient. Whether the time has yet arrived when the compulsory law could be entirely relaxed I am not prepared to say, but in the meantime I certainly think we should endeavour to learn all we can from the experience of such countries as Switzerland, where the experiment of abandoning compulsion has already been made."

But what harm does vaccination do? As a rule but little; but there can be no question whatever that more than occasional accidents do occur, three of which from a neighbouring State have come under my own notice during the last 12 months. But however little hurtful it is, we cannot lay aside the fact that vaccination means the setting up of a septic fever in a healthy infant—the contamination, however slightly, of a pure circulation by the introduction of a poisonous substance; and, if it could be safely done without, no parent would like to run the risk even of the normal consequences in his child, which are transient (as far as we know), much less the additional hazard of striking an accidental result in the shape of more serious consequences. In this connection the authority already quoted says:—"It must never be forgotten that vaccinia is, after all, a disease, and those of us whose profession it is to prevent disease should be ready to abandon it at the earliest possible moment consistent with the public safety. The control of disease by the substitution of one disease for another, whilst it may be expedient, can never be regarded as an ideal method." With this I cordially agree.

As to the methods of performing vaccination, many reforms have been introduced of late years by keeping in some sort of harmony with modern surgical methods; but in no other procedure of the medical practitioner, where the blood is to be directly dealt with, is there so much margin allowed as in that of this small but highly important operation. Surely the lancet should be sterilised after each inoculation, and the surface to be treated subjected to a few, at least, of the manifold scrubbings recognised by the surgical world over at the present day! The hands of the operator, too, should be included in this up-to-date cleansing and protective influence.

Even the dentist goes one better than we do, and is trying now, in upper circles of the craft at least, to sterilise the very gums of the client ere he proceeds with his stoppings or extractions. The wonder is that more accidents have not occurred with the revolting methods of inoculations of the past, and the only partial innovations of the present; but the same may be said of other surgical doings of former years, where the credit of much of the success attained has been due rather to the natural protective qualities of the human body itself than to anything else. The remuneration granted by the State Governments has been, and is, wholly inadequate for the work done, not to speak of the tantalising amount of clerical work accompanying each vaccination. No doubt, improvements in the methods would go hand in hand with increased emolument. The paltry half-a-crown might well be raised to half-a-guinea. Perhaps to us as medical men this aspect of the question is the most unsatisfactory of all, and we find in it some excuse for imperfect modes of procedure referred to.

Protective inoculation would hold good for smallpox as it does in our day for plague, but instead of systematic infant vaccination it would only apply to those sojourning in other parts outside the Commonwealth, children and adults alike. The question is also important from an insurance point of view, as it is generally asked by all societies, but a little use and custom would soon banish it from proposal forms. Further, although the question is asked, generally speaking, by all companies, a reply in the negative is, in so far as my own experience goes, never a bar to acceptance, all other things being equal.

Now, as to the precautions suggested. These would refer to the ports of call of all oversea ships in the Commonwealth, coupled with municipal arrangements inland for isolation in cases of necessity; quarantine of the most exacting character, including the right of inspection of all ocean-going ships as they approach our shores, the early detection of all suspicious cases, the thorough isolation of the passengers and crew, and vaccination and re-vaccination as may be necessary. Fumigation, always a difficult matter, to be carried out thoroughly and effectively, and other such precautions as may be essential in the opinion of those in charge. In short, a perfecting of the present system of harbour protection, for which expert officers would be held responsible. We should then have reliable, if somewhat complex and expensive machinery, which might be put in motion at once in case of necessity—perfect in every detail, and the amplitude of which would vouch for the introduction of cases of variola being next to impossible.

Our main forces, then, of prevention would be exhibited at the entrances to the several States, where there would reside an officer, specially selected by the Government in each case, and eminently qualified for his all-important duties, who should be given a free hand to carry out all that is essential and necessary according to the most improved methods of protection. The increased cost, on the half-and-half system now in vogue, could more than be met by the saving of present fees to public vaccinators.

Now, by way of conclusion, let me say I have tried to emphasise, first, the very unsatisfactory state of vaccination to-day in the Australian States—a position quite untenable for any time in a federated community; and next have thrown out a few suggestions for dealing with protection against smallpox, without compulsory infant vaccination. My chief desire has been to point out that I regard the protection of the community as a whole as infinitely to be desired to the arming of the individuals. What are the probabilities? One person in 10,000 of our people will never have to combat an attack of smallpox; if so, then why contaminate the whole 10,000 with vaccination? What we need is prevention at places where alone it is likely to creep in, coupled with effectual means to peremptorily stamp it out should its introduction be actually threatened, before it further asserts itself in the community.

I have not brought the present suggestions before you by way of making a sensation, or of stirring up an agitation unnecessarily, but rather because I have long been of opinion that, in Australia, we are in a peculiarly strong position to try such an experiment. That it has been my own strong conviction that compulsory vaccination is not essential in Australia is sufficiently demonstrated by the fact that none of my family have been subjected to the process. It may be that few here to-day have ever considered the matter in the light which I have tried to show it, and that they have been content, like most of our brethren elsewhere, to accept the orthodox conclusion, perhaps without serious thought, that it would be almost profane to question the wisdom of universal compulsory vaccination, no matter what the conditions. Let me here say I put forward my own ideas on the subject with the deepest respect to such traditional beliefs. I am fully conscious that the views here expressed may meet with sharp criticism, if not condemnation at the outset, but am not without hope that more mature reflection by medical men generally upon this serious question may at least evolve a toleration which will admit that the iron-handed principle of compulsory vaccination, under Australian skies, is certainly open to some modification.

(Read before the Border Medical Association.)

A CASE OF HÆMOGLOBINURIA.

By A. S. Joske, M.D., Prahran, Victoria.

S.E., aged 10, had been ailing for three days when I saw him on July 10th, 1903. He had complained of being weak and had general pains in his loins, particularly in his right side. He was a child subject to "nerve" attacks, getting, his mother said, "goose-flesh" attacks very easily. After any exertion he became run down and felt ill for some days. He had an attack of pleuro-pneumonia two years previous to this present illness and had quite recovered. On the third day of his attack, when he got out of bed to pass his water he noticed it had a queer look, and drew his mother's attention to it. I was then sent for, and found a clear, healthy-looking boy, complaining of some slight backache and pain in the right side, and was shown a quantity of urine of a pinkish hue, frothy, with not much deposit in it. The condition puzzled me, and the boy was placed in bed. The examination revealed nothing, and the history showed he had been having a good deal of extra exertion, playing football far more than he was accustomed to, and had got chilled. Dr. Mackeddie examined the urine for me, and reported as follows:—The specimen was of a distinctly reddish tinge, and gave the reaction for blood pigment. Microscopically, only a few red cells were detected on a great many fields of examination. There was no albumen in the specimen examined. The condition went off after the boy was kept in bed, but on being let get out of bed the condition repeated itself. This went on for three separate gettings out of bed. After the third time the pinkish deposit disappeared, and has not since returned. The boy has since remained well and strong. The condition is a very rare one. I can recall but one other in connection with the Alfred Hospital. This was an elderly man, broken down. He was admitted for this hæmoglobinuric condition, and when he was rested in bed for a few days it passed off, but on any exertion it repeated itself. After some weeks of rest and tonic treatment he improved and left the hospital, but was readmitted some months afterwards, recovered, and then was lost sight of. This patient's urine was not like the one I have reported first, but varied from the peculiar pinkish hue to a dark red or chocolate brown. The following notes which I have collected are interesting:—

The Pathology.—The condition is probably due to the disintegration of a small proportion of red discs in the circulating blood, and to be due to undue sensitiveness to cold on the part of certain of the red blood discs. Transfusion of blood from one kind of animal to another, as when lamb's blood is transfused into the veins of a dog it will produce hæmoglobinuria in the dog. Extensive burns and head apoplexy is said also to cause the condition. Typhoid and ague are said to be causes also. The colour of urine containing hæmoglobin varies; sometimes it is pink, sometimes dark red or chocolate brown, and sometimes almost black. It has been compared to strong tea or porter. The urine may be clear on passing, but as it cools it may throw down a thick sediment of lithates.

Sometimes sporadic attacks occur among infants. The Dresden Lying-in Hospital outbreak is a case in point. Between March 20th and April 29th, 1879, 24 newly-born infants were attacked by it and 23 died. The symptoms were the same in all the cases. On the fourth day the child generally became cyanosed and collapsed with cold extremities, and usually died within 36 hours, death being preceded by convulsions. Post-mortem examination showed dark brown kidney, with plugs of hæmoglobin in the papillæ.

(Read before the Victorian Branch of the British Medical Association.)

ABSENCE OF ASCENDING, TRANSVERSE, AND DESCENDING COLON, AND OF THE SIGMOID FLEXURE.

By John B. Nash, M.D., M.L.C., and J. T. Wilson, M.B., Prof. of Anatomy, Sydney University.

A FEMALE, *æt.* 5 years. An incision was made through the right rectus abdominis muscle, 1¼ in. from the mid-line of the abdomen, and extending from the costal margin downwards for 4½ in. When the peritoneum was exposed, coils of small intestine were seen lying in contact with its inner surface. These coils presented in the lower part of the wound when the serous membrane was opened, and a delicate network of tissue containing a small amount of fat was lying inside the opening at its upper part, this represented the omentum, and when it was traced upwards the greater curvature of the stomach was come to. Commencing at the pylorus, the small intestine was followed along its various coils to the ileo-cæcal junction. Here the cæcum and the appendix occupied the ordinary site, and were of average size and capacity. The first part of the large bowel was a short coil lying in the lumbar region outside the cæcum, it turned downwards and inwards, and crossed the posterior abdominal wall below the cæcum, above the brim of the true pelvis, in front of the promontory of the sacrum, reached the true pelvic brim on the left side, and was continued downwards as the rectum. A short mesentery attached the large bowel in its transverse course to the posterior abdominal wall. The ascending, transverse, and descending, colon and the sigmoid flexure were absent.

This irregular anatomical condition might be somewhat disconcerting during an operation. The child made a rapid and uneventful recovery. The operation was performed for the removal of a foreign body from the small intestine.

Developmental Considerations by Prof. Wilson.

The heterotopic condition referred to is explicable as the result of an arrest of the normal processes of development affecting the position of the intestine. In the original fœtal condition the gut is a short, straight, symmetrical medially-placed tube. This very early undergoes a rapid increase in length, out of proportion to the body cavity in which it lies. In consequence of this overgrowth there is formed the " primary intestinal loop," a U-shaped loop, convex forward, which lies sagittally in the median plane of the embryo. From the summit of this loop the vitelline duct connects the gut with the yolk sac, or umbilical vesicle. Between the layers of the primitive mesentery, which lies in the concavity of the loop, the omphalo-mesenteric artery (the later superior mesenteric) passes on its way to the yolk sac. A segment of the hinder limb of the U-shaped loop soon becomes differentiated as part of the large intestine, the point of transition being indicated by the pouch-like dilatation of the cæco-appendix. Next, rotation of this primary loop occurs, about an axis represented by the stem of the omphalo-mesenteric artery, in such a manner that the hinder (caudal) limb of the loop is carried away to the right, the cæco-appendix in this way coming to lie in the region corresponding to the future right hypochondrium.. The embryonic large intestine thus comes to cross the anterior limb of the primary loop about the region corresponding to the future duodeno-jejunal junction. At this stage, owing to the position of the cæcum, there is no distinction of an ascending from a transverse colon. This position of the cæcum may be permanently retained, but, normally, it migrates gradually in a caudal direction, giving rise to an ascending colon.

Now, ordinarily, the descending colon with the splenic and sigmoid flexures, derived from the hinder limb of the primary intestinal loop, and attached by a free mesenteric attachment, become spread out away to the left of the body cavity as a consequence of the rotation of the loop above described. There the originally free mesentery of the descending colon becomes, as it were, glued to the dorsal wall of the peritoneal cavity, and thus loses its independence entirely. In like manner, the mesentery of the ascending colon and the cæcum, being thrown over to the right, becomes more or less glued down to the posterior abdominal wall, in the normal sequence of events. From the failure to complete the normal sequence, various congenital irregularities result. Thus, if the rotation of the primary loop be incompletely effected, and the gluing down of the originally free mesenterics of the ascending and descending colon be omitted, we shall have an absence of the normal peritoneal reflections in the lumbar regions, and the ascending and descending colon may remain freely movable, and various heterotopic positions of different parts of the colon may be found. The descending colon may be located abnormally near the median plane or even to the right of it. Cases do in fact occur where the entire colon retains its original free mesentery, which is then directly continuous with that of the small intestine, giving rise to the condition known as " mesenterium commune." In such cases even the duodenum may retain its original mesentery, continuous at the pylorus with the " dorsal mesogastrium " or great omentum. All intermediate conditions may be explained in terms of " arrest of development " as regards the normal processes summarised above.

A donation of one guinea has been received by the secretary of the Melbourne Hospital in the following exceptional circumstances :—In December last a passenger gave a sovereign instead of a shilling in payment of his tram fare. The conductor did not notice the mistake at the time, and, following the usual practice, sent the 19s change to the head office, where it was kept for a reasonable time to allow the passenger to claim it. The money was returned to the conductor a few days ago, but he sent it back to the head office, with the request that it and 2s of his own money be forwarded as a donation to the Melbourne Hospital.

BARCOO OR BELYANDO FEVER.

By **Frederick Watson, M.B., Ch.M.** (Syd.)
Toowoomba (Q.)

An epidemic of the disorder, which is well known to Western bushmen as the "Barcoo Spew" or Belyando fever, occurred in Toowoomba Hospital during November, 1903. A fortnight previously the matron of the same hospital observed it at Jondaryan, and these appear to be the first occasions it is known so far east. It is a disorder possessing fairly definite clinical aspects, but its etiology seems obscure.

It appears to be an infective disease, and occurs in acute and subacute forms, characterised by sudden onset, emesis, anorexia, and fever. It is endemic on the plains of Western Queensland, Western New South Wales, and Central Australia, and on the Belyando River in North Queensland, and occurs at all times of the year, though it is rarer in winter. The Toowoomba series of case was epidemic in character, lasting about three weeks, and there has been no recurrence since. The disorder affects all ages and sexes alike. The symptoms vary from the mild case, which has only slight anorexia and loathing on the sight of food, or the inability to retain the morning meal, to the severe case exhibiting violent emesis, pains, and fever of 103·5°.

In a typical case the patient arises in the morning apparently quite well, except for a slight headache, but as soon as he sees food he is attacked with vomiting, which occurs with extreme rapidity, and is soon followed by increased headache. In a little while this will cease, but immediately recurs at the sight of more food. At the same time the temperature rises ½° to 5°, and joint pains of rheumatic type may occur, more especially in the upper limb. There is some slight epigastric pain, the tongue becomes dirty and assumes a typhoidal aspect along the edges, which was never noticed to extend to the dorsum. The amount vomited is small in quantity, and is sometimes associated with much straining, whilst the vomited matter varies in tint from greenish to colourless. The bowels are sometimes costive and sometimes normal, and the stools may be slightly clay coloured. The conjunctivæ show no change in colour. The urine was normal, except in one case, which showed traces of bile. The duration of the disorder varies. The patient may be quite recovered by the time of next meal, or it may continue for four or five days with varying intensity of symptoms, and during this time the patient experiences considerable malaise, and looks ill and worried, until one morning the patient awakes in normal health and has no further trouble. Experienced bushmen say that it sometimes lasts up to a month and that it is periodic; but this is more probably fresh attacks, and the cases observed have had no recurrences. As to prognosis, if left alone it cures itself, and no after-effects have been observed. Under treatment the vomiting reacts readily, but the headache, joint pains, and temperature may be obstinate for some time. The great remedy in the bush is Worcester sauce, which they use with apparent success.

As to its pathology, the vomit was only examined in three cases. The vomited matter, unless some food had been forcibly ingested, seldom exceeded an ounce or two in quantity at each act of emesis. It varied in tinge from greenish to colourless, had no froth, and was non-viscid. In one case the presence of bile was detected. Blood was not tested for. Under the microscope sarcinæ ventriculi and yeast fungi were observed, the latter being abundant, and in addition a few short chains of streptococci were present. The dirty tongue, anorexia, occasional epigastric pain, and congested pharynx all seem to point to some gastric catarrh, but the joint pains and the presence of bile, in the urine in one case, in the vomit in another, lead to a suspicion of further systemic affection.

As to its etiology, some who have suffered from it attribute the disorder to their food; but this seems erroneous, as it was observed in two varieties of hospital diet (milk foods and full diet), and it occurs with the diet of the swagman's camp, the travellers' hut, and the station homestead, and no bigger variety could be imagined. Neither do climatic conditions appear causal, as it occurs in all seasons—summer and winter, rain and drought—though it is said to be rarer in winter. The want of vegetables is another cause advanced, but the two epidemics observed, when vegetables were freely accessible and in use, seem to place this out of court also. Some observant bushmen say it is due to certain flies feeding on carrion flesh, and then having access to the meat for human consumption; and the only negative fact to this theory observed was that the disorder occurred in two patients when upon a diet of milk foods.

To sum up, this fever seems to belong to Manson's group of "unclassed simple continued fevers," with the difference that it appears more commonly in isolated habitations rather than in towns. Its occurrence in epidemic form in certain Eastern parts, and its endemic nature in some western districts, seems to point also to a specific origin.

For the information as to geographical distribution and the etiological suggestions, I am indebted to various bushmen, patients, and friends.

A CASE OF PROLONGED TYPHOID FEVER.

By W. Macansh, M.B., Brighton, Victoria.

Edith C. H., age 14, schoolgirl, complained of headache and not feeling well on February 6th, 1904; gradually getting worse; was sent home from a boarding school on February 20th, and I saw her on February 23rd, when she was delirious. Temperature 104°, pulse slow, 74; tongue dry and brown; abdomen tympanitic, with a number of well marked typhoid spots on both back and abdomen. We calculated that she was then in the seventeenth day of her fever.

The treatment was: Acetozone gr. xv., dissolved in 27 oz. of water, every 12 hours, liquid diet, sponging every two hours while the temperature remained above 103°. The sponging was disappointing in not reducing the temperature as much as I desired, but it always lessened the delirium and produced a little sleep. From the seventeenth to the twenty-first day of the fever the temperature varied between 103° and 105°, and the pulse remaining low for such a temperature, varying between 70 and 100 to the minute. During this time I was making two to four visits, and on each visit I checked the nurse's record of pulse and temperature, so that I think you may accept the charts as correct. On the twenty-first day of the fever I fell ill, and the patient was attended by Dr. Roderick Aitchison until the twenty-sixth day of the fever. She passed a slough on the twenty-third day; motions had been frequent, and various diarrhœa mixtures had been given to check them. From the twenty-sixth day of the fever (March 3rd) until the seventy-sixth (April 23rd), Dr. A. R. Grant, who was looking after my practice, attended her. The fever was gradually abating from the twenty-sixth day of the fever to the thirty-first, when it began to rise, and from the thirty-third day to the fortieth the temperature was persistently high, between 102° and 104·4°, and Dr. Grant noticed that the pulse began to grow more rapid always over the 100. March 24th, the forty-seventh day of the fever, was the last day of a high temperature, 102·2°. The temperature gradually subsided, and Dr. Grant began to mount the diet ladder—on the sixtieth day of the fever with some maizena; the sixty-first, custard; on the sixty-eighth, bread and butter; on the seventy-third, fish. A temperature of 99° on the seventy-fourth day stopped the fish diet. On the seventy-sixth day, when I again saw her, she was very emaciated; legs drawn up, unable to straighten them, and too weak to turn in bed without assistance. The nurse had left two days, and the mother had kept a slough which had been passed that day for me to see. The abdomen was tympanitic and tender. The patient was put back to liquid diet, and on the seventy-seventh day another slough was passed. The tenderness in the abdomen and the fall of the temperature every morning of from a degree to a degree and a half, determined me to hasten slowly, and be very cautious with the diet. From the ninetieth day to the 109th day the temperature had on two occasions only passed the normal line, and then only to 99°, and I was beginning to upbraid myself for being too cautious and attaching too much importance to slight tenderness on pressure over the transverse colon. On the 108th day the temperature showed signs of jumping a little and the pulse had quickened to 94, and without being able to tell why, the pulse made me feel anxious. On the 109th day a slough passed; on the 111th, three more sloughs; on the 113th, two more. On the 117th day the temperature again went to 101°, and remained about normal at night until 123rd day. For about ten days there was a mucus colitis, and on the 137th day from the commencement of the fever the last slough passed. On the 143rd day all abdominal tenderness had gone, and the patient after that recovered rapidly.

(Read before the Victorian Branch of the British Medical Association.)

Plague in India.—According to reports received by the President of the Board of Health from the Indian health authorities, 10,812 persons were seized with plague during the week ended February 4th, and 36,107 died. During the last week in that month there were 37,143 seizures and 33,660 deaths.

CLINICAL AND PATHOLOGICAL NOTES.

A CASE OF MENIERE'S DISEASE.

A MAN, about 38 years of age, single, engaged as a fettler on the railway, consulted me on March 17th, complaining of "buzzing in the ears." The history he gave was as follows:—Six months ago at Geraldton, W.A., he was standing quietly on the footpath when he suddenly became giddy, reeled, and fell to the ground, losing consciousness. He recovered consciousness in a few minutes, but ever since has suffered from noises in the head. These he described as similar to "water rushing from his right ear to the left," the trouble (*i.e.*, the noise) being much worse on the left side. These noises have been constantly present, though varying somewhat in intensity. He has also suffered from frequent attacks of giddiness or "light-headedness," though these are becoming less frequent lately. There is a tendency to insomnia owing to the noises in his head. On questioning, he thought he had been getting a little deaf in his *left* ear. His past history was good. No history of syphilis, trauma, etc. He was quite well till six months ago, and is now well but for this trouble.

Examination showed him to be absolutely deaf in the *right* ear, while hearing on the left side was fairly normal. Both Eustachian passages were unobstructed, the left external auditory meatus and tympanum were normal, the right the same except for a little furuncular inflammation. There were no other evidences of nervous, cardiac, or renal trouble. Arterial tension moderate. This appears to be a genuine case of Meniére's disease, due to a hæmorrhage or rapid effusion into the right labyrinth, the causation being obscure. A striking feature of the case was the certainty with which the patient attributed the trouble to the left ear.

THEODORE AMBROSE, M.B., Ch.M. (Syd.)
Mt. Magnet, W.A.

FOREIGN BODY RETAINED IN BRONCHUS FOR TWENTY MONTHS.

ABOUT 11 p.m., August 22nd, 1903, I was called to E.B., a married woman, aged 20. On arriving, I found it to be a case of labour, with eclampsia. The os being sufficiently dilated, and the fits severe and rapidly following one another, I at once applied forceps, delivering a fine boy in a few minutes. The fits continuing almost as severe after delivery, I administered chloroform with some benefit. I waited some time, then gave a hypodermic injection of one-sixth grain morphia, and left four ¼-grain tabloids, one to be given by the mouth every six hours, returning home at daylight. I was again called late in the day; the fits were still in evidence, but not so severe or often. I drew off the urine, which on testing was so loaded with albumen as to be almost solid. On the 24th I was again called, as no urine had been passed; water was drawn off, but she was no better; the fits had ceased at 4 p.m. this day, but the patient was not sensible. On the 28th I was called to her, finding only slight improvement, beyond her opening her eyes when loudly called by name. She gradually recovered, but did not recognise her husband till the morning of the eighth day after event.

There was much complaint of cough, which nothing seemed to relieve, and on examining the chest I found mucous rales, both in front and behind, and much less albumen in the urine. From time to time she was brought to me for the cough, which was very distressing. She became again pregnant, and it was arranged for her to come to Gunning for her confinement; the urine had become free of albumen, and there was no return in her second pregnancy. On September 15th I received a hurried message to go at once; on arriving I found she had given birth to a stillborn male infant, which had been dead at least two weeks. She quickly recovered and, with exception of the cough, was quite well.

On April 25th of this year I received a letter from her to say she had coughed up a portion of a toothbrush handle, which she was forwarding to me, a toothbrush having been put between her teeth to prevent the biting of tongue during her fits. The part sent to me was a little over an eighth of an inch in thickness; the measure is seven-eighths of an inch in length, seven-sixteenths wide. Needless to say, I had not been told of her having bitten a piece off a toothbrush. She adds that she has not coughed once since, and is quite well. That such a substance should have been somewhere in the trachea for twenty months is at least a strange coincidence.

On Friday last, May 5th, she came to see me, having walked in thirteen miles; she was quite well, other business having called her to Gunning.

JAMES F. LOVEGROVE,
Gunning, May 8th, 1905. M.R.C.S. (Eng.), L.S.A. (Lond.)

REVIEWS AND NOTICES OF BOOKS.

The Diagnosis and Modern Treatment of Pulmonary Consumption, with Special References to the Early Recognition and the Permanent Arrest of the Disease. By Arthur Latham, M.A., M.D. Oxon., M.A. Cantab., F.R.C.P. Lond. Author of the Prize Essay on "The Erection of His Majesty's Sanatorium," etc., etc. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 5s net.

This work, which has run into a second edition, is one which we can confidently recommend both to the general practitioner and the specialist in pulmonary complaints.

The chapters which will probably be the most interesting and the most useful to the practitioner are those which deal with the diagnosis in the very early stage, and in which the details of the open-air method of treatment as carried out in a private house are discussed. In the first-mentioned chapter, the author lays down the following propositions:—1. When tubercle bacilli are present in the expectoration or saliva, no matter what symptoms may be present, no matter what physical signs may be found, we must make a positive diagnosis of pulmonary consumption. 2. A positive diagnosis of pulmonary consumption should be made when hæmoptysis, even to such a small extent as a teaspoonful, is associated with suspicious physical signs or symptoms, and a careful examination reveals no evidence that the blood comes from the upper air-passages or is dependent upon some other disease than tuberculosis. 3. For all practical purposes we must diagnose pulmonary tuberculosis where we find diminished resonance and increased resistance to the finger associated with the presence of persistent crepitations or fine râles in those situations in which tuberculosis usually begins—that is to say, in the apices of the lungs, more especially towards their posterior aspect.

These statements, with which we entirely agree, are amply discussed and illustrated with cases. The author then proceeds to discuss the diagnostic use of tuberculin in obscure cases in which the physical signs and symptoms do not enable us to arrive at a definite diagnosis. After pointing out very emphatically the cases in which it should not be employed, he concludes that "under proper conditions—that is, the absence of definite signs of the existence of extensive disease, the absence of fever and the employment of small doses—there is no danger whatever in the use of tuberculin as a diagnostic agent in the early stages of consumption."

Further on in the book, speaking of tuberculin as a therapeutic agent, Dr. Latham says that "statistics as far as they go would seem to indicate that tuberculin may be a useful adjuvant in the treatment of cases of tuberculosis in which the lesion is not advanced and in which the temperature is not raised." He adds, however, that "we want more experience in a larger number of cases before we can give a more definite opinion of its value." Here we think it proper to point out that the statistical results of tuberculin treatment given in this work, as in most other writings on the subject, are largely if not completely invalidated by the fact that hygienic and dietetic methods have been employed at the same time. A fair comparison of the results of treatment by tuberculin and by the open-air method can only be made when the patients are submitted either to tuberculin injection alone or the open-air method alone.

The chapter dealing with the open-air method as carried out in a private house will be appreciated especially by practitioners in Australia, where well-equipped private sanatoria under the direct supervision of resident medical men are almost unknown, and we are compelled to treat most of our well-to-do patients in the private house. The details of this plan are fully and clearly set forth in this book, which has a good index, and for which we venture to predict a large sale.

P.S.J.

Epilepsy and its Treatment. By William P. Spratling, M.D., Superintendent of the Craig Colony for Epileptics at Sonyea, N.Y. Illustrated. Philadelphia, New York, London: W. B. Saunders and Company. 1904. Melbourne: James Little. Price, 20s.

In these pages Dr. Spratling gives us the results of his labours and experience as medical superintendent of the Craig Colony for Epileptics, and has succeeded in writing what is undoubtedly the most comprehensive work on the subject of epilepsy in the English language. Although epilepsy has been a recognised disease since the earliest times, it is remarkable how little we still really know of its etiology and pathology. But much has been accomplished in recent years towards elucidating the subject and enabling us to differentiate various forms of convulsive disease from so-called idiopathic epilepsy.

Dr. Spratling defines epilepsy as "a disease or disorder affecting the brain characterised by recurrent paroxysms which are abrupt in appearance, variable in duration, but generally short, and in which there is impairment or loss of motor co-ordination with or without convulsions." This is a sufficiently comprehensive definition to include all the phases of epilepsy, both the severe and lighter forms of the disease. He discusses two classifications of the cases, one based on symptomotology and one on etiology. The former includes the *grand mal*, *petit mal*, *Jacksonian*, and *psychic*. This classification seems sufficient for all practical purposes, since the classification based on etiology, considering how uncertain our knowledge is on the causation of the disease, must necessarily be imperfect. But two important facts are emphasised by Dr. Spratling to which we think assent must be given by all, first, that epilepsy is a condition or disease dependent on nervous or degenerative disease in the parents more frequently than on any other single cause; secondly, that fully 80 per cent. or more of all cases of epilepsy begin before the twentieth year. The author uses these two facts to formulate a practical classification based on etiology.

The author gives an elaborate scheme for the examination of every case which includes (1) the family history; (2) the personal history; (3) the history of the epilepsy; and (4) the personal examination of the patient. Under the last heading he refers to the examination of the physiognomy of the patient; and the various stigmata of degeneration, such as the cranial anomalies, facial asymetry, deformities of the palate, anomalies of the ears, etc., are fully described and illustrated.

The chapter on the pathology of the disease is contributed by Drs. Pierce Clark, and Prout. After a *resumé* of the progress of our knowledge in this department of pathology, they give an account of the morbid anatomy of the disease, including the various deformities of the skull, and the appearances of the brain and membranes met with in some cases. The microscopic pathology is next discussed, and after giving the results of their study of the cerebral cortex in 20 cases of epilepsy from the Craig Colony, they finally draw the following conclusions:—1. "Epilepsy is a cerebral disease attended and followed by profound and diffuse cortical degeneration. 2. The morbid changes concern chiefly the destruction of the nuclei of the cells of the sensory type from which the primary departure of the disease originates. Its terminal pathology is a progressive gliosis more or less marked and diffuse. 3. Epilepsy is essentially a sensory phenomenon with a motor manifestation. 4. Its etio-pathology rests with a variety of toxic or autotoxic agents not as yet definitely isolated or determined. 5. The disease is engrafted upon a cortical organic cellular anomaly which is induced largely by a faulty heredity, the exact anatomic nature of which is not known." Further researches on the pathology must apparently be along the lines of chemical physiology and pathology.

The important subject of treatment is dealt with in several chapters. Beginning with some general considerations on the advisability of the complete control of the patient by the physician, Dr. Spratling proceeds to the subject of diet, and outlines what should be allowed for the three meals of the day. He does not believe in a very restricted diet, and considers that some meat once a day is not only harmless but is actually beneficial. The medical treatment is fully discussed. We agree with the writer that no particular advantage is to be derived from attempting to check an approaching attack of epilepsy, for frequently if the fit is stopped the patient feels more or less uncomfortable, and the subsequent attack may be more severe. He emphasises what is now well recognised, that to be effectual the drug treatment of this disease must be prolonged, and points out that while the bromides have justly attained the reputation of being the most effective drugs for the treatment of epilepsy, yet the continued use of large doses of these remedies is accompanied by bad effects upon the heart, respiration, gastro-intestinal canal, skin and nutrition, which in many cases counterbalance the good to be derived from their use. The time of administration of the drug should be determined by the time of the day in which the attacks tend to appear, and, as far as possible, upon an empty stomach. The use of bromopin instead of the bromide salts is advocated, particularly as this preparation can be given hypodermically and does not cause derangement of the gastro-intestinal canal or of the skin. The author does not speak favourably of borax owing to its tendency to upset the digestion and cause diarrhœa. We think, however, that in certain cases of petit mal, and in cases in which the bromides have been administered for a long time without much apparent benefit, borax is distinctly beneficial, especially if combined with nitro-glycerine. A number of other drugs are referred to as having been found useful by some physicians from time to time, but which experience has proved to be not constantly of much benefit. An important adjunct to the treatment of epilepsy, namely, the relief of eye strain, is referred to, and this we believe to be a matter of the utmost importance in every case of epilepsy, not so much as a means of cure of the disease, but because the relief of peripheral irritation of all kinds is recognised as an essential part of the treatment. On the question of the surgical treatment of idiopathic epilepsy we entirely agree with the author that in only a very small proportion of cases is any operation indicated, and the beneficial results of operation, except in a very small proportion even of apparently suitable cases, are practically nil. It is of course important, as we remarked just now, that all sources of peripheral irritation should be removed as far as possible, but the too frequent performance of abdominal section for removal of ovaries or for morbid conditions of the pelvic organs, which are supposed to be the cause of the epilepsy, is to be unhesitatingly condemned, as experience shows that no good is effected thereby.

The book closes with some consideration of the psychological aspects of the disease. The work is well printed and fully illustrated, but we must confess that, in our opinion, the utility of some of these illustrations is open to question. G.E.R.

A Text-Book on the Practice of Medicine. By J. M. French, M.D., Lecturer on the Theory and Practice of Medicine, Medical College of Ohio, etc. Illustrated. New York: W. Wood & Co. Sydney: L. Bruck. Price, 16s.

The author's design in this text-book is "to present the student and practitioner of medicine the facts of medicine as accepted by the best authorities, omitting discussions that rest solely upon theory or undemonstrated observations." His personal experience has been kept in the background, and no reports of illustrative cases are inserted. In our opinion, if any special value is to be attached to a work on medicine, it is that the book records the personal experience of the writer. The special interest and value which is attached to the first edition of Dr. Hilton Fagge's text-book on medicine is the large share of the personal experience and observations therein recorded; and any new work which is simply a compilation of "facts" in medicine, without the personal experience of the author, must be consigned to that already long list of books which may be described as unnecessary.

In this work Dr. French begins by discussing the principles of medicine, and the fundamental facts of general pathology. Then in the second part he treats of practical medicine, and discusses in succession the disease of the various systems of the body. The concluding section of the work deals with clinical methods of examination. This latter part treats of clinical pathology, and in the space of 30 pages are included the clinical chemistry of the blood, urine, gastric and intestinal contents, and clinical bacteriology. As there are so many excellent text-books on this special branch of clinical work, we think that this section in Dr. French's book is almost useless, as it is necessarily too condensed to be a clear guide for the student of clinical chemistry and bacteriology.

The descriptions of the different diseases are concise and accurate, and suitable enough for a student who is beginning the study of medicine; but the work cannot be recommended as a serviceable one of reference for the general practitioner. G.E.R.

The Nutrition of the Infant. By Ralph Vincent, M.D., London. Second edition. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 10s 6d net

Although but ten months intervened between the first and this the second edition, the author states that the text has been carefully revised and various supplementary facts and considerations introduced. A new chapter on "Milk Depots and their Organisation" has been added, which should be useful. We recommend its perusal by all those who are interested in the preservation of infant life. C.P.B.C.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH MAY, 1905.

AN ETHICAL PROGRAMME FOR THE NEXT AUSTRALASIAN MEDICAL CONGRESS.

THREE years have elapsed since the last meeting of the Australasian Medical Congress at Hobart, and during that period some ethical matters have been prominently brought before the profession in the different States of the Commonwealth, which may profitably be discussed at the Congress in Adelaide in September next. With the increasing number of medical men entering on practice in Australasia, and with a practically stationary population, the struggle for practice is daily becoming keener, and hence the necessity for adherence to a strict ethical platform if the profession is not to be degraded and besmirched by shady practices.

The question of the "Battle of the Clubs" is, like the poor, always with us, but we think this may be settled once and for all if this Congress will really face it and decide upon some definite line of action. First of all it is necessary to state clearly whether we are to continue to recognise the principle of contract medical practice at all. If this be decided in the affirmative, then we should lay down definitely what we intend to recognise as medical benefit societies or associations, as having legitimate claims for recognition at the hands of the profession; and having defined our position on this point, the profession throughout Australasia should take a firm stand, and refuse to recognise or enter into any contracts with any other societies or organisations.

It should be authoritatively declared by Congress that no medical benefit club, which refuses to recognise the principle and provide the machinery necessary for enforcing a rigid wage limit, has any claim to recognition by the profession as a legitimate medical benefit society; and no organisation which is not primarily founded upon a philanthropic basis as a means of assisting the poor in their time of sickness and distress, should receive any consideration from the profession as having any claim upon them for attendance at contract rates. Political organisations, such as the Australian Natives' Association, should not be recognised anywhere in Australia as legitimate medical benefit societies. In this connection, too, we say that honorary medical officerships to sports' clubs of all kinds should be abolished.

Another point which might profitably be discussed is the question of the method of remuneration of the medical officers to these benefit societies. Every right-thinking practitioner must acknowledge that the present system of payment per member per annum, which includes attendance on the member's wife and family, and sometimes other relatives besides, leads inevitably to an unnecessary amount of work and worry on the part of the practitioner, and unsatisfactory attendance from the patients' point of view. A declaration of the opinion of the Congress on this point would be of value, and the recommendation of the adoption in all future contracts of a system of payment per visit or per consultation would lead to an immense improvement in lodge medical practice generally.

The combination of lodges or societies to form medical institutes is one of the methods adopted by these bodies to sweat the profession, and should be unhesitatingly condemned by Congress. In several of the larger cities of the Commonwealth the Australasian Branches of the British Medical Association are at war with these institutes, and have succeeded in preventing the formation of new ones and more or less crippled those already in existence. We wish to emphasise that it is not only in the interests of the medical profession that we would urge Congress to condemn the constitution of these institutes, but in the interests of the members of the lodges which have so combined. In spite of the abuse heaped upon us by prejudiced persons, we are a humane body of men, and have no desire to inflict any unnecessary suffering or hardship upon the deserving sick poor through any action of ours which might be interpreted as a selfish one; and hence it should be declared by Congress that it is in the best interests of the lodge members themselves that we oppose the formation of medical institutes.

A full discussion upon these points, which are at the present time burning questions in lodge practice, would, we believe, be welcome, but only profitable if it resulted in Congress deciding upon a definite policy which could be carried out by the Branches of the British Medical Association in the different States. Other ethical matters which might be brought before Congress we hope to refer to on another occasion.

THE VALUE OF THE SANATORIUM TREATMENT OF PULMONARY TUBERCULOSIS.

Some correspondence has recently been published in the columns of the *British Medical Journal* following upon an unfavourable view of the value of the sanatorium treatment of pulmonary tuberculosis expressed by Dr. Dutton. That gentleman stated that he had never seen a case of pulmonary tuberculosis cured by this method of treatment as carried out in Great Britain. Several correspondents, however, have assured him that numbers of cases have been known not only to be cured and to have kept well after treatment in sanatoria in Great Britain.

The report of the work done at the Queen Victoria Sanatorium at Wentworth Falls in New South Wales, presented at the annual meeting last month, gives us some insight into the value of this method of treatment as carried out in this State. It is well known to all who have given any thought to the subject that the sanatorium treatment of this disease is not to be considered a perfect cure for consumption, as some other methods of treatment have been pronounced to be, that each individual case requires careful consideration as to its suitability for sanatorium treatment at all, and that the treatment cannot be carried out in a routine fashion for one and all alike. It is also recognised that patients in whom the disease has been arrested, if not actually cured, at Wentworth Falls or any other sanatorium, are liable to relapse and the disease to recrudesce if the patients return to unfavourable hygienic surroundings. These possible untoward results, however, cannot in any way be attributed to defects in this method of treatment, but rather point to the necessity of supplementing the actual treatment received at the sanatorium by special education in the principles of hygiene, especially with regard to the danger of infecting healthy persons, and by assisting the destitute in securing suitable occupation in the country. Such an After-Care Association might well be instituted in connection with the Queen Victoria Homes for Consumptives.

Turning to the actual results so far accomplished, it is gratifying to find that a large proportion of the cases admitted, even though according to some they may have been unsuitable cases for sanatorium treatment, have done so well that the disease has been pronounced by the resident physician, Dr. McIntyre Sinclair, to have been arrested. It is but two years since this institution was opened for the reception of patients, and the large amount of success which has so far attended its operations should awaken the interest of the general public in the advance which has been made in the treatment of a disease which has always been regarded by the laity as inevitably fatal.

It is a matter of deep regret that this institution has lost the services of Dr. CECIL PURSER, who has been honorary secretary since the inception of the movement, the value of whose work is known only to those who have been intimately associated with him on the committee, and to whom is largely due the success of the movement. The appointment of a layman without any special knowledge of the work as his successor, will, we hope, not lead to any falling off in the interest or usefulness of this institution. We much regret also the retirement of Mr. HARRY LEVY from the honorary treasurership, a post he has held from the first, and the duties of which he has discharged with much ability and zeal.

THE MONTH.

The Australian Natives' Association in New South Wales.

At the recent A.N.A. conference in Sydney some rather startling statements were made by some of the brethren, who evidently spoke under the influence of deep emotion. The cruel hardships inflicted upon the suffering poor (?) members of this self-denying and patriotic association by the members of the British Medical Association were detailed, and various remedies suggested to put an end to this terrible persecution. It is somewhat of a relief, however, to find that these harrowing details existed only in the excited imagination of a worthy brother. It is also of some interest to know that the British Medical Association has an iron heel which it can use effectually in the true interests of the sick poor of this community, and that in the discharge of this sacred duty it has unfortunately come down on the neck of the Australian Natives' Association. We are very sorry for these political and would-be political gentlemen, and deeply sympathise with them in their misfortunes. But we really cannot help them. In some districts there are no doubt medical men who from selfish motives prefer to act on their own responsibility, and ignore the well-being of the profession to which they belong, and we believe that these gentlemen will be quite ready to attend members of the A.N.A. But we are quite sure that the members of the New South Wales Branch of the British Medical Association (which, by the way, Mr. Brother Martin, *is* a *bona fide* branch of the B.M.A.) will never consent to put their necks under the yoke of the A.N.A.—an association which has done more in the other States of Australia to sweat the profession than any other organisation, and which would do the same in New South Wales if it only had the chance.

Patent Medicines in New Zealand.

The regulations recently enacted under the Public Health Act in New Zealand, and which are to come into force on June 1st, require that the formulæ of patent medicines imported into that colony must be lodged with the Health Department, otherwise the importation of them would be prohibited. According to cablegrams in the daily press the patent medicine proprietors in England are actively protesting against these regulations, and, refusing to disclose the formulæ of their preparations, are ceasing to export their wares to New Zealand, and are withdrawing all advertisements from the newspapers published in that colony. Sir Joseph Ward, the Minister of Public Health, is reported to be reconsidering the matter. It would be interesting to know the effect of the total abolition of patent medicines on the general public, and on the medical men and chemists. In view, however, of the enormous amount annually spent in advertising these medicines throughout the world, and the corresponding profits which must be made from the sale of them, we rather doubt whether this line of action on the part of the patent medicine proprietors is one likely to be adhered to; and it is certainly in the interests of the public health that patent medicines, which often contain powerful and poisonous drugs, should not be allowed to be sold indiscriminately.

Proposed Hospital Tax in Queensland.

The Queensland Government are proposing to establish a wages tax to provide the necessary funds to support the public hospitals. This suggestion has already created some unfavourable comment, specially in friendly society circles. At the annual meeting of the Manchester Unity I.O.O.F. at Ipswich the Grand Master considered that they should enter the strongest protest against such a tax; and that if this tax were imposed then all members of friendly societies should be exempted, or hospitals should be made free to everyone. At the annual session of the Independent Order of Oddfellows in Rockhampton the Grand Master, referring to the same subject, said that the tax would be iniquitous if it were imposed on members of friendly societies, as they were already taxed through their lodges. He suggested that the local friendly societies should take up the matter and send strongly worded resolutions to Brisbane on the subject.

The Queensland Hospitals Aid Association.

From the *Brisbane Courier* we learn that at the last monthly meeting of the Executive Council of the Hospitals Aid Association in Brisbane, a letter was read from the secretary of the Queensland Ambulance Brigade, declining the proffered connection with the association in including the brigade as one of the benefiting institutions. After full discussion, the following resolution was unanimously carried:—"That the letter from the Ambulance Brigade be accepted as final, and regret expressed that they had declined the proffered assistance from this association." It was further resolved that any money received by this association during the year, ear-marked for the Ambulance Brigade, be forwarded to them. It was agreed that the hospital street collections be held on Saturday, 5th August, and hospital week collections begin on Monday, 31st July, ending on Hospital Saturday. Hospital Sports Carnival was being arranged for, to be held in June or July, representatives from various athletic clubs and State schools having been appointed to assist in carrying out the sports. The secretary gave a lengthy report of the work of the new scheme, which contained sixty-one additional firms who had adopted the scheme since the last monthly meeting.

Royal Society of New South Wales.

The annual dinner of the Royal Society of New South Wales was held at the A B C Café, Sydney, on April 27th. In the absence of the president, Mr. C. O. Burge, the chair was taken by Professor Liversidge, F.R.S., and there was a good attendance of members and visitors. The toast of "The King" was given by the President, who referred to the interest which his Majesty had always taken in scientific matters. The toast of "The Royal Society" was given by Dr. T. Storie Dixson, and responded to by Mr. G. H. Knibbs, one of the honorary secretaries. The toast of "Our Visitors" was given by Dr. Walter Spencer, and responded to by Mr. Kilburn Scott and Dr. F. Bennet. The honorary treasurer, Mr. D. Carment, gave the toast of "The Chairman," and in responding Professor Liversidge remarked that he had been connected with the Royal Society for 33 years, when there were only some 90 members on the roll, and the Society had no house and practically no assets. Although the society at present was brought face to face with a serious curtailment of its income, he did not at all take a despairing view of the situation, and felt sure that they would come through their difficulties satisfactorily.

The Ethel Pain Memorial in Old Cairo.

The many friends of Dr. Maynard Pain and his late wife will be interested in learning that on March 17th last the foundation stone of the "Ethel Pain Memorial Hospital" was laid in the Church Missionary Society's compound at Old Cairo. After tea in the garden and a special service conducted by the Rt. Rev. the Bishop of Jerusalem and the East, the actual ceremony of laying the stone was performed by Sir Algernon Coote, Bart. (president of the Hibernian C.M.S.), In a short speech Sir Algernon expressed his pleasure at having been asked to lay this stone, and then described the lack of room in the present hospital, the large number of patients, both paying and free, who are treated in it every year, and the circumstances which led to the builing of the new memorial wards. Less than two years after her first arrival in Egypt, Mrs. Pain had passed away, having laid down her life in the work. Her husband, Dr. Maynard Pain, who had been in charge of the Prince Alfred

Hospital in Sydney until he joined the C.M.S., is still a member of the society's staff in Old Cairo, and it was from his friends in Australia and New Zealand that subscriptions amounting to £2300 had been received. About £460 has been sent in donations from England, £127 by residents in Egypt and visitors at the hotels, while the members of the mission have shown their own belief in the value of the work by contributing £76. The money already subscribed is sufficient for the building contemplated. The hospital when finished will contain beds for about 35 women and children, and the present hospital will then be reserved for men only. There will also be an operating theatre with all the latest improvements, towards which the sterilising apparatus and an operating table have been already contributed.

The Grimwade Prize for Industrial Chemistry.

Mr. F. S. Grimwade, of the firm of Felton, Grimwade & Co., of Melbourne, recently presented the sum of £1000 to the Melbourne University to found a prize for the promotion of the study of industrial chemistry. The conditions and terms of award have now been considered by the University Senate. The competition will be open to graduates, undergraduates, and non-matriculated students of the University, who within two years have devoted not less than six months to industrial chemistry in one of the University laboratories. The examiners are to be guided by consideration of the scientific ability, originality, and chemical knowledge displayed by the candidates, and the importance of their work in respect to its bearing on any branch of industrial chemistry, such as metallurgy, pharmacy, agriculture, or the manufacture of chemical products. The prize will be open to competition for the first time next year.

The Treatment of Consumptives in New Zealand.

Dr. Mason, the Chief Government Medical Officer in New Zealand, stated recently that nearly 800 deaths annually occurred in that colony from pulmonary tuberculosis, and that the resultant loss to the community was over a quarter of a million sterling annually. The accommodation at present available for indigent consumptives is apparently quite inadequate, and a public meeting was recently held in Wellington to take some steps towards providing additional hospital accommodation for these sufferers. A large and representative gathering of prominent citizens was present, and the project before the meeting was to raise the sum of £2000 by public subscription to build an annexe to the Wellington Hospital, where this class of patient may be treated. It was unanimously agreed to undertake this task, and Dr. Newman reported that he and Dr. Valentine had already collected £450, and said that another £150 had been promised. A committee was appointed to carry out the details of the scheme, which we hope will meet with every success.

A Reception House for the Insane in Melbourne.

The Victorian Cabinet have been considering the question of providing a reception house for cases of acute mental illness, and have had under offer a building which, with a few necessary repairs and alterations, appeared to be suitable for this purpose. On investigation, however, it was ascertained that the amount of money which would be necessary to put this building into a satisfactory state was about £10,000, and since for this sum it would be possible to erect an entirely new building, the Government have decided to utilise a site at the Royal Park, on land at present under the control of the Department of Public Health. We hope that there will be no further delay in providing this very necessary part of the accommodation for the treatment of these suffering from acute mental disease.

THE UNIVERSITY OF SYDNEY.

POST-GRADUATE LECTURES ON ANATOMY.

A SERIES of Ten Lectures on the Anatomy of the Pelvis, suitable for general practitioners, will be delivered during Trinity Term, 1905, by Dr. F. P. Sandes, Acting Professor of Anatomy. The Lectures will be given in the Vesalian Theatre of the Medical School on Tuesdays at 8.30 p.m., beginning on June 13th.

The fee for the course will be £1 11s 6d.

H. E. BARFF, Registrar.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

The regular monthly meeting of the Branch was held at the Royal Society's Rooms on April 28th, at 8.15 p.m. Present: Dr. J. L. Beeston (president) in the chair, and 35 members. Visitor, Dr. J. B. Graham.

The minutes of the annual meeting were read and confirmed.

The **President** announced the election of Dr. C. A. Edwards, of Waverley, as a member of the Branch.

Mr. G. T. **Hankins** read a paper on "The Radical Mastoid Operation" (see page 199), and exhibited several patients showing the results of mastoid operations.

Drs. A. T. **Brady** and T. S. **Kirkland** also exhibited some patients on whom the mastoid operation had been performed.

Dr. **Brady** said that one objection to Ballance's operation was the opening of the temporal fascia, and the consequent exposure of the deep layer of muscles to infection by pus. This was avoided in the smaller incisions. As regards skin grafting, Drench of New York, had recently introduced the practice of grafting directly at the time of the operation, and his results had been good, as this method secured a rapid healing of the cavity. If, however, care were taken to remove all traces of dead bone, and make a perfectly clean surface, no skin grafting would be necessary. He was inclined to adopt Drench's method in suitable cases. As regards the history of the operation, he (Dr. Brady) was the first in Australia to do the radical operation. Some ten years ago, on his return from Vienna, he did the radical operation on a patient upon whom he had operated by the old method, and the patient had done well, retaining a fair amount of hearing up to the present time. There were undoubtedly two epochs in the history of the operation—the first, when Schwartze, abandoning the dangerous boring and drilling procedures, adopted what in mining phrase may be styled the open cut method; and the second, when Stacke devised and executed the radical mastoid operation in its essential particulars.

Dr. **Kirkland** said there were several points about this operation to which Mr. Hankins had not referred. It was often a matter of extreme difficulty to decide whether a case was a suitable one for the radical operation. This often required repeated examinations. One method he had found satisfactory was to thoroughly dry the ear, then place the patient on the side of the affected ear, and if pus appeared one could be sure it came from the antrum, and so this operation would be necessary. Another method he had adopted was to use an eye-dropper and drop some weak lysol solution into the ear and aspirate it repeatedly. If pus is in any of the accessory cavities it will appear in the eye-dropper. Whiting, of New York, had described what he calls the complete mastoid operation; but this necessitated laying bare a large cavity and removing the tip of the mastoid, which was not necessary in cases of chronic suppuration, but if the process were acute such would be necessary. The method was not unattended by some dangers. The facial nerve was sometimes injured, and sometimes it was destroyed, with a complete facial paralysis as a result. Then the lateral sinus was sometimes well forward, and there was consequently only a small space to work in. In Ballance's operation there was also a good deal of unnecessary deformity of the canal. As regards skin grafting, he had had experience of two cases. In one the graft had only partially adhered, and the result was an impairment of hearing. He thought that the gain in the time of healing was not equal to the loss or impairment of the hearing. The duration of healing might be set down at three months. The case of double mastoid operation he had shown that night had been done ten weeks ago. He had been in doubt as to the wisdom of doing the two operations simultaneously, so he did one operation at a week's interval after the first. Dundas Grant, of London, said recently that the mastoid operation was performed too frequently, and that cases of chronic suppuration often did quite well with simple curetting and removal of polypi, etc.

Dr. **Russell Nolan** said that for his part he looked upon the mastoid operation with much greater respect than he used to do. Much technique was required to perform it successfully, and much patience in the after treatment to get a good result. He thought the general surgeon very greedy if he wanted to do this operation. If the general practitioner only grasped the fact that he ought to be prepared to do the classical operation and open up the mastoid cells, to know where the lateral sinus was and how to avoid it, and not be tempted to go into the internal ear, much would be gained. No one could do the radical mastoid operation without considerable experience. As regards the after-treatment, he agreed with Mr. Hankins that the dressings should be done by the surgeon himself if he wished to get the best results. He thought Dr. Brady's case of ossiculectomy most interesting and instructive.

Dr. **Richard Arthur** had had great pleasure in listening to Mr. Hankins's paper, as he was much indebted to Mr. Hankins for a great deal of what he knew practically of the operation. He agreed with Dr. Nolan in urging that this operation should only be performed by the specialist. He wished to point out that acute cases could be dealt with by the general practitioner. All that was necessary was to cut down the mastoid, open up the mastoid cells, and with a sharp spoon scrape away a lot of softened material, and in most cases the patient would get quite well. But it was different with cases of chronic suppuration without any additional symptoms. Some years ago he had entered a plea for the conservative treatment of chronic ear discharges. If the ordinary treatment by syringing, etc., could only be *faithfully* carried out in these cases, most of them would do well; but the fact was that the treatment was *never* carried out *satisfactorily*. With regard to the treatment of acute inflammation superimposed upon chronic suppurative middle-ear disease, the radical operation incision should always be enlarged so as to expose the lateral sinus. He had recorded two cases which ended fatally in consequence of neglect to do this. Time ought not to be wasted in finishing off the main cavity neatly, but the surgeon should get back and expose the lateral sinus in every case, so as to avoid the danger of lateral sinus thrombosis.

Dr. **Fiaschi** thought that the general practitioner should be prepared to operate on any case of this nature in an emergency.

Mr. **Hankins**, in reply to Dr. Kirkland, said that there was no distortion of the canal in the operation as now performed by Mr. Ballance. No doubt the occurrence of facial paralysis after this operation was a most disagreeable sequel. In most cases it was not due to any carelessness on the part of the surgeon. It did not usually arise from the chiselling, but from the after curetting. Heath advised not to curette the mucous lining of the tympanum so as to lessen the danger of the occurrence of facial paralysis. To further lessen the danger of this complication, Heath used a piece of gauze to pack the auditus instead of a protector. As regards the operation of ossiculectomy, his experience had not been a happy one. He thought it easier and safer to operate with parts well exposed than to work at the end of the canal, where there was danger of wounding the facial nerve.

Queensland.

A general meeting of the Queensland Branch was held on May 5th, with an attendance of 18 members.

The minutes of the previous meeting having been read and confirmed, the election of one new member was announced, and two names were nominated for election.

An unusual case of congenital malformation in a child (twin) of nine months was shown by Dr. Wield, and excited some discussion.

Dr. B. B. Ham read a paper on "Infantile Paralysis." (See page 193.)

Dr. Robertson congratulated Dr. Ham on his paper, and asked for discussion.

Dr. Love said that four years ago he had searched the hospital records of Queensland for a history of such an epidemic as had just occurred, but in vain. He agreed with Dr. Ham that it was too soon for any decision as to the results of the paralysis, as improvement goes on for a period of more than 12 months. He thought it a pity that cerebro-spinal meningitis should have been brought into the discussion. He was inclined to consider the paralysis of this epidemic of anterior poliomyelitis less a result of thrombosis than of a poisoning by toxins similar to those that occur in lead poisoning, diphtheria, and perhaps in Landry's paralysis. He thought it but the duty of the medical profession to record their impressions of such an epidemic in the fullest and most careful manner.

Dr. Turner said that clinically the late epidemic was undoubtedly anterior poliomyelitis. The question might be raised, Was it a mixed epidemic of cerebro-spinal meningitis and anterior poliomyelitis, as Dr. Faulkner suggested in his late paper? Possibly anterior poliomyelitis has symptoms resembling those of cerebro-spinal meningitis. He cited a case of septic abscess of the neck which developed the disease while in hospital, and described its sudden and unexpected development of paralysis. Also a case—a fatal one—where the paralysis was at first supposed to be a late result of a fall from a cart. Both arms were completely paralysed, while the legs were immune. Diaphragmatic paralysis ensued, and death followed, doubtless by implication of the intercostals. Post-mortem showed no injury to spine, cerebro-spinal fluid clear and containing no organisms and no cells. Results of the minute examination of the cord were not yet ready. A third case simulated cerebro-spinal meningitis in a child of two. Sudden onset, with convulsions, cerebral irritability, with photophobia and later some squint and tendency to retraction, followed by a total paralysis of all limbs. It was sent to the Children's Hospital, and there developed irritative symptoms. The limbs, flaccid at first, showed rigidity and contraction. Lumbar puncture got clear fluid, unfortunately not examined for organisms. This case gradually recovered, except for deltoid paresis and paresis of some of the leg muscles, just as a case of anterior poliomyelitis would be expected to do.

Dr. McDonald would hardly expect that a toxin could produce such asymmetrical paralysis. Dr. Love's comparison with lead poisoning and diphtheria was not apt, in so far as the paralyses there are symmetrical.

Dr. Hawkes thought the duration of improvement was generally under-estimated. He expected possible improvement for as many as five or six years, and cited a case where in 1897 a child had anterior poliomyelitis, with paralysis of left arm, left leg, and some muscle of right leg. The arm recovered soon, but the legs showed no improvement for more than a year. In 1901 they began to improve, and in 1905 only the extensors of the toes had not recovered. The treatment was forcible extension, under anæsthesia, and fixing in plaster of Paris. He advocated this treatment early as the best method of preventing deformities and contractures.

Dr. Eleanor Bourne gave some notes of the cases admitted to the Children's Hospital:—*Age:* Chiefly last half of first year and second year. *Sex:* Male showed a slight majority. *Time of year:* Began in July and ended in February; worst in October. *Onset of Paralysis:* Varied from first to fourteenth day; where paralysis came on early, recovery not so good. *Fever* in every case but one, accompanied by vomiting in about half the cases; convulsions in one; twitching of limbs in one; abdominal pains in three; bronchitis and tonsilitis each in one; pain in affected limbs in nearly all cases. *Limbs affected:* One leg in five cases; both legs in eight; one arm and one leg of same side, one; one arm and opposite leg, one. *Prognosis:* Diaphragm affected in two cases, both of which died. In cases in which both limbs are affected, arms recover before legs, with exception of deltoid paralysis, which is very obstinate. One case had complete paralysis of all four limbs, paralysis of left side of face, difficulty in swallowing, and retention of urine. These completely recovered, except the deltoid of one arm and the glutei of both legs. When glutei are affected they take long to recover. Another similar case had complete recovery in both arms, but talipes equinus persisted in both legs. Another case simulated typhoid, till on the eighth day paralysis developed. Recovery seems in inverse proportion to child's age.

Dr. Byrne thought that there had been a few undoubted cases of cerebro-spinal meningitis during the epidemic. He had himself seen two such cases. Whether or not there be any connection between the two diseases, he had seen in cerebro-spinal meningitis some degree of paresis, if not actual paralysis. It seemed a curious thing that the posterior cornu was never affected, and so a paralysis of sensation produced. He narrated some details of a case of ascending paralysis confined to the upper part of the body.

Dr. Ham thanked the members for their cordial reception of his paper. He remarked with regard to Dr. Turner's case that it was possible that the "clear fluid" was taken from a spot too low down on the cord. He agreed with the other speakers that the cord cannot be so much damaged as text-books have alleged. He hoped that the cases of persistent paralysis would be actively followed up.

Victoria.

The ordinary monthly meeting was held on Wednesday, April 19th; the President, Dr. H. W. Bryant, in the chair.

The minutes were taken as read.

Dr. Macansh read notes on "A Sudden Case of Goitre."

Dr. Weigall asked whether it could not possibly have been a hæmatoma or sudden effusion of fluid in the thyroid region. There seemed to be no evidence of over-activity of the gland.

Dr. Cuscaden thought that hæmorrhage could scarcely be as symmetrically bilateral or have such special tenseness of the isthmus as occurred in this case.

Dr. Laurie asked if there were any thrill on palpation.

Dr. Macansh, in reply, said that it was an undoubted swelling of the gland itself, whether of the gland substance or from effusion of fluid he could not say. There was no thrill nor fluctuation to be elicited. She had complained of occasional feelings of suffocation lasting only a few minutes for some time past.

Dr. Macansh then read notes on "A Case of Prolonged Typhoid Fever." (See page 213.)

The President said that one occasionally came across these prolonged cases in which there was great difficulty in keeping them under control. They had used acetozone, but found it difficult to give sufficient by the mouth, and had administered it also per rectum with doubtful results. He had used guaiacol in typhoid cases for the last fourteen years, rubbed into the skin. He began with m. x. to xv. for an adult, rubbed into a different part daily. This caused a drop in the temperature of one to two degrees, transient at first, but lasting longer and requiring smaller inunctions later. He had seen ½ m. make a difference of two degrees. Great care was needed in its use, as some patients were very susceptible to its action, especially children, and he had seen severe collapse follow. He, however, had not lost a case since using it. One effect invariably seen was that when the temperature came down in the normal course it always fell considerably below normal, the patient getting a good appetite with speedy convalescence.

Dr. Weigall recalled a case with a history of passing sloughs for some time, and with what were taken to be typhoid spots and enlarged spleen. Even after seeming convalescence it was considered advisable to do a laparotomy, and the condition was found to be one of tubercular peritonitis. The intestine was examined and an extensive scar was found in the small intestine. In tubercular ulceration he thought the stools were paler and more acholic than in typhoid fever. Another cause of prolonged typhoid fever insisted upon by the late Dr. Snowball was congenital syphilis. He had found acetozone very useful in some cases of colitis.

Dr. Vance congratulated Dr. Macansh on the result of his interesting case. He mentioned a case of fatal perforation occurring without warning in a boy four weeks after discharge from hospital. He also showed the chart of a case lasting 138 days, ending in recovery.

Dr. Cuscaden referred to a case of his which ran an irregular temperature for nearly three months, in which he considered there was a septic infection concurrent with the typhoid fever.

Dr. Beckett considered that tubercular ulceration of the intestines was very difficult of diagnosis, and that tubercular disease in the abdomen was much more common than was generally supposed.

Dr, Joske thought the 26th day early for the passage of sloughs. He considered that where sloughs were passed early there was extensive deep ulceration in the region of the ileo-cæcal valve. It was a matter of regret that bacteriological methods of diagnosis had not been used in Dr. Macansh's case. He thought that in all cases of prolonged fever with abdominal symptoms a surgical opinion should be obtained.

Dr. Macansh, in reply, stated that he had never had any doubt of its being typhoid fever. The motions at first were yellow ochre and offensive, but improved in a few days after the use of acetozone. If he had been in charge of the case when the first recrudescence occurred he would have used intercellular transfusion with saline solution. He found this of great value in cases with a tendency to coma and delirium. He thanked members for their friendly criticism.

Dr. Joske read notes on "A Case of Hæmoglobinuria." (See page 210.)

Drs. Cuscaden and Laurie discussed the case.

Ballarat.

The ordinary bi-monthly meeting was held at the Ballarat Hospital on March 30th, 1905. Present: Vice-president (Dr. J. Steell) and nine other membes. Apologies: President (Dr. T. A. Wilson) and seven members.

Minutes of previous meeting were read and confirmed.

Correspondence received from Victorian Branch B.M.A. and J. Whittle, chemist.

The Secretary reported having communicated to the Coroner the decision of the Branch *re* post-mortem examinations, and stated that he had that morning seen the Coroner, who had referred the question to the Crown Law Department, and was in receipt of a letter from the Crown Solicitor stating that the attitude taken up by members of this Branch was legally correct.

Drs. Mitchell and L. R. Steell moved—"That the secretary inform all members of this Branch that the highest legal authority in Victoria has admitted that a medical man after having made a post-mortem examination cannot be compelled to say anything about the cause of death until sworn." Carried.

Dr. J. Steell showed a case of rodent ulcer previously exhibited at the November (1904) meeting. The right side of the face showed some slight improvement, but the remainder of the ulcer was stationary.

Dr. Sloss read a paper on "Puerperal Sepsis." (See page 203.)

Drs. Champion, Mitchell, and Richards took part in the discussion.

Dr. Usher read a paper on "Ailments, chiefly minor, with some Reminiscences," which he was unable to complete on account of the lateness of the hour, and the meeting consequently terminated.

South Australia.

The monthly meeting for April was held on the 27th, at the University, at 8 p.m. Dr. C. W. Hamilton presided over a large attendance of members.

Minutes of last meeting were read and signed.

Exhibits were shown by Drs. Lendon and Gunson.

Mr. Rogers, of the University, kindly demonstrated a stereoscope for X-ray photos which Professor Watson had obtained from Melbourne.

The President notified the election by the Council of Drs. Stokes, M. Scott, Suckling Hunter, C. E. Wilson and Wells. He also said that the scheme for a provident and benevolent society was still under consideration by the Council.

Six members then continued the adjourned discussion on Dr. Lendon's paper, read at the last meeting.

Dr. C. H. Souter then read notes on a case of "Tetanus." The discussion on this subject was postponed until the next month's meeting.

The Dunedin Hospital Trustees have imported an X-rays apparatus of the latest design, with every requisite for the proper application of the X-rays for the purposes of diagnosis and treatment. This will necessitate the appointment of a skilled expert on the staff of the hospital.

REPORTS OF OTHER SOCIETIES.

Medical Society of Victoria.

The ordinary monthly meeting was held in the hall on Wednesday, May 3rd; the President (Dr. A. Jeffries Wood) in the chair.

Dr. W. Atkinson Wood showed a case of old hip disease in a boy. When he first saw the case there was ankylosis of the hip at an angle of about 45 degrees, with considerable adduction. It was with difficulty he got about at all, and there was considerable pain at night, making sleep difficult. He performed subtrochanteric osteotomy, after which the limb was straightened and put up in plaster for eight weeks, with the result that the boy can get about with comfort and can sleep. There was now an entire absence of lordosis.

Dr. A. W. F. Noyes showed a case of mycosis fungoides in a man in whom the whole of the cutaneous surface, as well as the mucous membrane of the mouth and soft palate, was studded with typical lesions in the various stages of development, and of various sizes.

Dr. Noyes also showed a case of molluscum fibrosum, which had been shown at a previous meeting, but in which there had been a considerable advance in the size of the lesions. He mentioned that Recklinghausen had considered that the lesions bore some relation to neurofibromata, and he showed some lantern slides of microscopical preparations he had published in the *Journal of Pathology*, which seemed to bear out this view.

Dr. W. Moore showed a man on whom he had performed laryngectomy. A growth in the larynx had been removed two years before, but there had been a recurrence. He had first divided the trachea and dissected the larynx from below upwards. He had removed the epiglottis and endeavoured to stitch the parts together. There had, however, for some time been a sinus with leakage of food. This had now ceased. He expected that the opening into the trachea would contract further, necessitating the wearing of a tube.

Mr. Fred Bird showed a young man in whom he had twice had to resect part of the intestines. Eleven years ago he was the second successful case of Murphy's button operation in Victoria. That operation had been necessary in the course of a large appendicular abscess with intestinal gangrene. Lately a large abscess formed in the scar, which appeared to be purely subcutaneous and was simply incised. However, a sinus persisted which did not close. On operation it was found to lead down to perforations in the ileum and cæcum, and it was found necessary to resect four inches of the bowel. There was no sign of the appendix found at the second operation, though it had not been removed at the first.

Dr. Stirling showed a woman of 40 years of age, the subject of a pylorectomy and posterior gastrojejunostomy. There was a definite tumour with dilatation of the stomach, and the patient had been losing weight rapidly. The tumour was found to be carcinomatous, and was causing almost complete obliteration of the pyloric orifice.

Dr. S. W. Summons read notes on thirteen cases of hysteria in children, occurring during his residentship at the Children's Hospital. They included cases of paralysis, obstinate vomiting, chorea, joint disease, etc.

Dr. Moore said that these cases were of special value to those who did not come across them very often, as they were so easily overlooked. He referred specially to cases he had seen where children and young people had caused palpable lesions in a hysterical condition.

Dr. Springthorpe considered that among the general body of practitioners the mental factor in disease was by no means sufficiently recognised. To these cases he always applied the term neuromimesis. These were the cases in which quacks and Christian scientists worked their miracles. He cited many interesting cases, mentioning a most obstinate case of blepharospasm, which was only cured by bandaging the eyes and excluding all light for some weeks.

Dr. Officer referred to a case of obstinate vomiting, and also expressed his opinion that the most difficult cases were those which simulated hip and spinal disease. It was a serious matter to condemn a hysterical patient to a couple of years on a Thomas' splint.

Dr. Hughes referred to two cases of hysterical amblyopia in children from the same orphanage. He considered that it was only in cases of hysterical talipes that one saw instances of pure talipes varus.

Dr. Andrews and the President also spoke of cases of hysterical anorexia and hysterical vomiting.

Border Medical Association.

ANNUAL MEETING.

The annual meeting was held at Albury on March 28th.

Present: Dr. Andrews, president; Dr. Harkin, vice-president; and Drs. Cameron, Johnston, Schlink, Kennedy, Cleaver-Woods, Muller, Neumann, Sibbleberg, Henderson, and Lang.

The minutes of the previous meeting were confirmed.

The balance-sheet showed that 29 members had paid their subscriptions for the year at 10s each, and that the expenditure had amounted to £5 7s 6d, leaving a cash balance of £9 2s 6d.

The balance-sheet was adopted.

The following members, who had been nominated for office during 1905, were declared elected:—President, Dr. Harkin; vice-president, Dr. Harris, committee, Drs. Andrews, Shuter, and Henderson; hon. secretary and treasurer, Dr. Lang.

Apologies for absence from the meeting were read from Dr. Patterson, Tallangatta; Dr. Coan, Beechworth; Dr. Button, Junee; Drs. Shuter and Skinner, Beechworth; Dr. Altman, Bright; Dr. Barrington, Benalla; Dr. McCardel, Wangaratta; Dr. Jamieson, Yarrawonga; Dr. Robinson, Jerilderie; Dr. Kelly, Dookie; and Dr. Boyes, Wangaratta.

Dr. Andrews, the retiring president, then made the following valedictory remarks:—At this the end of the first year of the existence of our Association, I think a brief review will show that its formation was justified, and its continuance to be desired. When first mooted it was recognised that the sparse population of the extensive district necessarily embraced in its sphere of operations would greatly militate against any large numerical success. We may, therefore, congratulate ourselves in that we have secured 29 members out of 35 practitioners within reach. New names are being submitted for election, and we may reasonably expect to receive the support of many additions to our professional ranks. The difficulty of fixing a central place for meeting has been much felt. The inconvenient times of trains and the distance many members have to travel in the past almost compelled us to meet at Wangaratta. Perhaps in the future it may be found possible to meet elsewhere, or even alternately at the various townships in the district. In spite of all difficulties, however, the meetings have been well attended. The amount of work accomplished, althought it has not been great, has been fruitful of much useful discussion and, I may say, some benefit to those present. The meetings have been at all times marked by the utmost good feeling, and the personal relations of the members have been of a most happy nature. Among papers read, I would particularise that by Dr. Harkin on "Nasal Polypi," one by Dr. Kennedy entitled "Personal Experience of New Drugs in the Treatment of Disease." This latter led to an extremely animated and useful discussion, in which all present took part. A paper by Dr. Lang on "Hydatids" sketched shortly the life history of the parasite and its treatment, and was much appreciated. Another by Dr. Harris on "Uterine Fibromyomata," illustrated by a specimen and supplemented by a most scholarly dissertation on the pathology thereof by Dr. Harkin, was welcomed and appreciated as worthy of being read before any association. During the year there has been found a little diffidence on the part of members in the matter of contributing to our discussions. This appears to rise from a feeling that they have not time with their numerous engagements to write an elaborate paper; but I would point out that a short note on any case does not take long to prepare, and often will lead to more and more interesting discussion than the most advanced literary effort. It has been suggested that at each meeting some particular drug should be set down for discussion, and such a course is well worthy of consideration. Another suggestion I would like to make, and that is that a short *resumé* of our meetings should be prepared and sent to all that were unable to attend. We know that we are often precluded at the last moment from attending, and would much like to know what is said and done on subjects in which we are interested. This, of course, would considerably increase the work of our secretary, but I think that it could be arranged without much trouble. Here let me say how much I have, during my year of office, been helped by our worthy secretary, and to congratulate the Association on his having consented to retain the position for another year. He has had all the work to do, and we all know how well he has done it. I am very pleased to be able to record my personal thanks to him. Another matter that I should like to see the incoming committee take in hand at an early date is our affiliation with the British Medical Association. There is no doubt that if we could get rid of the initial difficulties of forming a sub-branch of this Association, it would strengthen our hands materially in dealing with matters of interest. Of course, no action could be taken without consulting all our members, and each step would have to be most carefully considered. In conclusion, I must thank all for their help and forbearance as regards myself. I feel strongly that another might have done much more than I have during my year of office. Such a position as your first president could only fall to one, and it is an honour I shall always remember and appreciate. In vacating the chair, I feel quite sure that your interests will not suffer at the hands of my successor, whom I have now great pleasure in placing in that position. Will you kindly allow me, on behalf of my colleagues of Albury and Wodonga, to thank you all for your acceptance of our invitation to meet here to-day, and to trust that we shall be able to make your stay pleasant.

He then retired from the president's chair, which was taken by Dr. HARKIN, who said:—My warmest thanks are due to you for electing me to the honourable position of president of our Association, and while this is a gratifying matter to me, it is also one that fills me with misgivings, since considerable tact and wisdom are required to follow in the path of my predecessor. We have founded a society which all of us hope will be a source of strength to ourselves and of light and leading to the public on all that relates to the medical profession. Whether it will achieve these ends or not will depend very largely on the policy pursued by the earlier presidents. By a tacit understanding, an inaugural address should avoid the purely technical subjects which figure so largely at ordinary meetings, and should deal with matters of general interest to the profession. No circumstance that can come within our province equals in importance the anniversary that we celebrate to-day; and I propose, in the few remarks I have to make, to review the work of the past 12 months, and to see if the business transacted at our meetings furnishes reasons for congratulation or regret. It will be noticed at the first glance that medicine and surgery claimed an equal share in the topics discussed. I say discussed advisedly, for every question was fully threshed out, and there were few who did not participate in the threshing. I mean, of course, subjectively. It was a modern "Round Table"—

> When every morning brought out a noble chance,
> And every chance brought out a noble knight.

Of the gallant champions that figured in the lists I will not record the names. Of the deeds of daring-do, the charges made, the numbers slain, let sober chroniclers relate. The breadth and variety of the programme must have provided mental pabulum for the most exacting. So that on purely professional grounds the Association has succeeded. It has triumphed also socially. Our profession is a jealous one; its votaries keep far apart, like Gilbert's heroes, who "had not been introduced." Like the outposts of an army, they view one another, if not with aversion, at least with suspicion. With so many interests in common, it is amazing that anything has kept us apart. I hope that the year that is to come will convince even the most sceptical that his neighbour is neither a cannibal nor a convict, and that each meeting may be like the month of Ramadan, when the warrior lays aside his sword and takes the top off his spear. That this consummation is being realised is evident from the good fellowship displayed at our gatherings. Our weapons should not be for one another, but for our enemy at the gates. The good offices of our Association have already been sought to adjust a difference arising out of contract practice. Naturally enough it is flattering to have judicial powers bestowed upon us, but we can only deserve them by doing justice, which requires that we hear both sides and hold the balance fairly. Without traditions of our own, it is our duty to lay them down for our successors, and to make straight the ways which we have found beset with difficulties. In an age of unionism, we are compelled to organise; and no body of men can long survive which does not offer a bold front to its enemies. The rage for cheapness is everywhere rampant, and there is no lodge which does not regard it as the prime object of its existence to cut down the just emoluments of our profession. Men are wont to regard the amount paid for a thing at its just value, and when it is obtained for nothing, or near it, they picture it mentally as an object of little worth. From the product to the producer is but a step, and his status in public estimation rises or falls in sympathy with the public appreciation of his services. Under these circumstances, it is the duty of our Society to resist all inroads on the emoluments or dignity of the profession of medicine. A sort of process of erosion, no doubt part of the democratic spirit, is slowly levelling down all grades of society, and development progresses from the heterogeneous to the homogeneous, and not in the reverse direction. In this tide, which is running rapidly, it is possible that the "medical proletariat" may be a not undreamt-of reality. While our minds view evolution by the "survival of the fittest," let us not be blind to the other process of "evolution by atrophy." While research flourishes, charlatanism thrives exceedingly. In their zeal for liberty the revolutionists of France threw themselves into the hands of the first capable tyrant they met, and it would be an interesting anti-climax to see this century of ours, which we are wont to regard as the acme of scientific perfection, again in the hands of the quack and the barber surgeon. In modern society there are, then, two important influences for us to study in relation to our lot. One is the widespread spirit of research manifested by medical investigators, who "scorn delights and live laborious days." The other is the levelling influences of the time as shown by the love of cheapness. These currents in the stream of life are mutually antagonistic, and it remains to be seen whether in floating our little bark, we may enjoy the benefits of the one, and yet avoid shipwreck from the other.

Dr. **Schlink** then exhibited a patient suffering from progressive muscular atrophy. She was a girl of 13 years of age, and she had been first attacked by the disease about nine years ago. There was no family history, no apparent cause, but she had had a fall some time before her state was first noticed. The muscles of the upper arm and shoulder were very much atrophied as well as the pectorals. The humerus could be dislocated without pain on either side, and she could do so voluntarily. The atrophy of the muscles of the forearm was not so marked. The latissimus dorsi and serratus were atrophied, but not the intercostals. The thigh was markedly shrunken, but the rectus femoris was unaffected, or at least not to the same extent as the other muscles. The muscles below the knee were unaffected, which gave an appearance of hypertrophy. Her gait was a peculiarly rolling one, with the head thrown back, and the abdomen protuberant. If she lost her balance she fell "all of a heap," and was unable to rise. If laid on a sofa she could get up by means of the "make-shift movements" described by Gowers. She had no power of internal rotation of the thighs. Dr. Schlink had only seen the case for the first time very lately, and had not had time to work it out thoroughly, but thought the members might be interested in seeing it.

Dr. **Cameron** exhibited numerous slides showing pathological sections. They were much appreciated, more particularly an epithelioma of the penis, the process of absorption of a blood clot, in a cerebral hæmorrhage, and the earliest stage of an abscess in the kidney.

Dr. **Cleaver Woods** read a paper on "The Unsatisfactory Position of Vaccination in the Commonwealth." (See page 206.)

Dr. **Andrews** spoke, firstly to the effect that none who had seen an epidemic of smallpox would ever cavil at vaccination being compulsory, and gave a few reminiscences from his experiences of two epidemics. One was in a town and the other in a country place. In both vaccination was practically infallible in stopping the epidemic. He also referred to the frequent importations of the disease to the various States. The time was not ripe for such measures as proposed. The troubles following vaccination are generally due to the delay in having it performed until children were old enough to scratch, etc., and the carelessness of mothers and nurses. He also spoke of the probable result of variola becoming established in the country as shown by epidemics in other countries, when a disease is first introduced, or introduced after a long period of absence; also, that if Dr. Woods' plan were carried out fully, there would be none fit to attend on any case imported and quarantined. He read from the *British Medical Journal* of January 14th the result of contact with a single case in a Board school in Yorkshire.

Dr. **Henderson** was pleased to notice that Dr. Woods did not question the great preventive effects of efficient vaccination. He (Dr. Henderson) thought that it would be quite unwarrantable conduct to relax the compulsory vaccination of infants. The grave risk would be where a latent case developed smallpox amongst an unvaccinated community. No quarantine, however well carried out, could prevent this risk. It would mean that there would probably be hundreds of deaths in a short time, and a great expense in dealing with an outbreak, as there would be few vaccinated people to act in its suppression. He would be in favour of making the laws more stringent than at present, so that vaccination was made compulsory.

Dr. **Harkin** said that quarantine without vaccination was the ideal method to be pursued, but unfortunately it had not succeeded practically. In Australia we were not really isolated at all, since by means of the islands we are almost in direct connection with Asia, the home of almost all epidemics. Our communication with these islands, and consequently with Asia, would increase as our trade expands, so that quarantine regulations would become increasingly difficult to carry out. After some years we would be in the position of savage tribes who had never been immunised against smallpox, and amongst whom that disease caused unheard-of ravages, as it did with the Canadian and American Indians generally.

Drs. **Sibbleberg**, **Cameron**, **Shortt**, and **Lang** also made some remarks on the subject.

Dr. **Woods**, in reply, said he regretted that most of the speakers had missed the chief point in criticising his paper. He had treated only of the position in Australia, which, in many respects, was in strong contrast to that of the old land. The appalling statistics of former times elsewhere had nothing to do with the question at issue. He was particularly impressed with one aspect of the subject brought out by Dr. Harkin, viz., the latent element of variola, which would permit a case to escape the most vigilant quarantine regulations and locate itself far away inland before detection was possible. Such a contingency would, however, be very rare indeed, and it must be admitted that the accidental case suddenly discovered one day in the Wangaratta Hospital, which he mentioned, appeared to have had no serious consequences. Dr. Woods hoped that, before definite action were taken by the Commonwealth health authorities in regard to compulsion throughout the States, the opinions of the various medical societies would be ascertained. The chief object of his preparing the paper was to draw attention to the anomaly existing at present, and to have the question considered afresh and purely from an Australian standpoint.

Dr. **Andrews** proposed, and Dr. **Schlink** seconded—"That the next place of meeting be Wangaratta, and that the date be some day in June, to be fixed later on."

Dr. **Andrews** promised to open a discussion on "The Preparation, Liquor Sedans," and Dr. **Kennedy** promised a paper on "The Literature of Gout."

The meeting then adjourned.

Sydney Metropolitan Medical Association.

The annual meeting was held at 121 Bathurst-street, on Thursday, May 4th. Dr. Palmer took the chair.

A letter was read from Dr. Taylor Young, President, expressing regret for his unavoidable absence on a journey to Europe.

The reports of the Hon. Secretary and Treasurer were read and adopted.

No active work concerning the relations of the profession with friendly societies had been necessary during the past year, but various efforts by medical officers to resist encroachment had been crowned with success, partly owing to the confidence engendered by the moral support of this Association. The influence thus exercised is a strong guarantee for the maintenance of harmonious relations, and the lessons already learned by agitators against the profession in certain quarters are evidently not forgotten.

The following were elected as office-bearers for the ensuing year:—President, Dr. Maitland; vice-presidents, Drs. Palmer and Gledden; hon. secretary, Dr. Walter Spencer; hon. treasurer, Dr. John Harris; committee, Drs. Hankins, West, Corlette, F. W. Hall, and Levy.

Western Suburbs Medical Association, Sydney.

The annual meeting took place at the Ashfield Hall on May 3rd, 1905.

A dinner was first held, and there was a most satisfactory attendance, all the members of the Association being present, with the exception of two or three. Dr. Cecil Purser, the president, was in the chair, supported by the vice-presidents, Drs. Perkins and Wade.

After a splendid repast, the meeting was opened. The reports of the hon. secretary and hon. treasurer were read, and in moving the adoption of them, Dr. Purser referred to the good work done during the year. One of the most striking features of the year, and illustrating the advantages of our being united, was the case of one of the lodges which previously had not been paying the standard rate for the district; this lodge refused to pay it, and the four medical officers—all members of this Association—resigned. The support of our Association and of the Metropolitan Medical Association was obtained, and as a result the four medical men were reappointed at the increased rate and under a much more satisfactory agreement.

Proposed juvenile lodges at reduced rates also came under view during the year, but it was decided that such should not be held by any member, and they fell through.

The Association has also passed a resolution disapproving of any member accepting any position as specialist to any lodge or lodges in the district.

At one meeting the President read a paper in which he advocated the notification of all cases of pulmonary tuberculosis; a resolution to that effect was unanimously passed by the meeting, after an interesting discussion.

In moving the adoption of the reports, Dr. Purser expressed the hope, concurred in by all present, that the compulsory notification, now confined to the city of Sydney alone, would be extended not only to the suburbs, but to the State generally.

The hon. treasurer (Dr. Allan) reported a credit balance of £12 13s 2d.

The election of Dr. Campbell, of Marrickville, as a member was announced.

The result of the ballot for office-bearers was as follows:—President, Dr. Perkins; vice-presidents, Drs. Wade and Allan; hon. treasurer, Dr. Lawes; hon. secretary, Dr. Lipscomb; assistant hon. secretary, Dr. Cosh. Council: Drs. Hinder, Abbott, Frizell, Purser.

In vacating his position, Dr. Purser introduced Dr. Perkins to the meeting as the new president, who returned thanks for the honour paid to him.

What was voted by all to be a most successful evening ended in music. Dr. Blaxland presided at the piano, and acted as musical director, himself singing several capital songs; Drs. Maguire, Purser and Shorter also rendering some excellently sung classical music.

Royal Alexandra Hospital for Children.—The eighth clinical afternoon was held at the out-patient department in Valentine-lane, Sydney, on April 28th; Dr. W. Chisholm presided. Dr. Macdonald Gill showed a boy aged eight years, with symptoms of idiopathic muscular atrophy. There was moderate lordosis on standing and kyphosis on sitting. The infra- and supraspinati, the serrati, the rhomboides, and the latissimi dorsi were wasted. An unusual feature was the escape from wasting of the pectoral muscles. The legs were little if at all affected. Dr. Wade showed a child, aged seven months, with two symmetrically placed tumours on the inner border of the soles of the feet, just anterior to the heels. There was a strong family history of hæmorrhages. Dr. Littlejohn showed a child, aged two years and three months, with all the classical symptoms of sporadic cretinism. He also showed an undersized boy, aged two years, with congenital heart disease; a girl aged three years, suffering from spastic diplegia; and a baby, aged 10 months, with epiphysitis, and what he took to be syphilitic bronchitis. Dr. Litchfield showed a baby, aged one month, suffering from hydrocephalus; a girl, aged seven years, who gave a typical history of periodical vomiting; and a girl, aged three years, with a scaly eruption of the scalp, face, trunk and limbs, which he thought was a dry form of seborrhœa. Other members present, however, preferred to look upon it as a xerodermia.

OBITUARY.

T. C. Wright, M.B., Ch.M.

We regret to record the sudden death of Dr. T. C. Wright, of Gulgong, New South Wales, which occurred on April 15th. Dr. Wright, who took the degrees of M.B., Ch.M. in Edinburgh in 1868, had previously practised in Mitchell and in Texas, Queensland, and removed to Gulgong about three years ago, where he was in active practice up to the time of his death. He was highly respected in that district, and general regret was expressed at his sudden death, and much sympathy shown with his widow.

R. W. Murphy, L.S.A. (Lon.), L. *et* L., M.D., R.C.P. (Edin.), M.R.C.S. (Eng.)

We regret to record the death of Dr. R. W. Murphy, of Launceston, Tasmania, which took place on April 20th, after a protracted illness, in his 57th year. He took the qualifications of L.S.A. (London), L. *et* L. Mid., R.C.P. (Edinburgh), and M.R.C.S. (England) in the year 1872, and had practised in Launceston for several years.

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

The Medical Treatment of Gastric Ulcer.

Henry (*American Medicine*, March 11th, 1905) states that the frequent observation of characteristic cicatrices in the stomachs of individuals who, during life, may have manifested no severe symptoms or signs of gastric disorder, shows that the tendency of the disease is towards recovery, and the object of treatment is therefore to assist nature in the effort to cure. The most important indication is rest, both general and local; and this is fulfilled by putting the patient to bed and nourishing him with rectal enemata. The following mixture has been found by Ewald to answer every purpose of rectal feeding:—Two or three eggs are beaten up with a tablespoonful of cold water; a small quantity of starch is then boiled with half a cupful of a 20 per cent. solution of grape sugar, to which is added a wineglassful of claret. The egg mixture is now slowly added, taking care that the fluid is not hot enough to coagulate the albumen. The nutritive enema, which should not amount to more than eight ounces, should be preceded by one of simple water containing a little salt, in order to cleanse the rectum preliminary to its digestive performance. Such a mixture may be administered for a considerable time without causing undue irritation, provided it be introduced as high up as possible and slowly injected. The patient may be nourished exclusively by the rectum for at least a week, the sense of hunger if acute being relieved by opium, which also quiets the muscular layer of the stomach and prevents or allays vomiting. When nourishment by the mouth is resumed, it should be of the blandest character, consisting entirely of milk or gruel. Milk may constitute the sole article of diet for two or three weeks. It should be administered warm, and mixed with limewater in the proportion of half an ounce of limewater to four or six ounces of milk, or, if the gastric secretions are very acid, a little sodium bicarbonate may be added. Raw or soft boiled eggs, beef, mutton and chicken broths, and good preparations of beef peptone are excellent articles of diet in these cases. Solid diet must not be resumed until several weeks after the beginning of the treatment; even then the greatest care must be taken to exclude indigestible articles. As regards the medicinal treatment, bismuth subnitrate exerts a sedative action upon the stomach, neutralises acidity, and possibly, as some believe, forms a protective coating upon the surface of the ulcer. It should be given in doses of half a drachm thrice daily. Pain, when severe, demands the use of opium or morphine. Vomiting is best overcome by total abstinence from food by the mouth, by the hypodermic injection of morphine, and by small doses of cocaine hydrochlorate. Hæmatemesis is met by absolute rest, both local and general, by the hypodermic injection of adrenalin or ergot, and the ingestion of small pieces of ice. Purgatives should be used with caution, and calomel especially must be avoided. The laxative effects of Carlsbad salts or water is undoubtedly beneficial. One to four drachms of the salt dissolved in a pint of water may be slowly consumed in the morning before breakfast. For the treatment of the coincident anæmia, the best form of iron is the albuminate. This may be prepared as follows:—A two per cent. solution of iron sesquichloride is made, and of this one teaspoonful is taken thrice daily, mixed with a wineglassful of egg water—*i.e.*, a solution of albumen made by adding one part of white of egg to two parts of water. The author speaks favourably of a method of treatment advocated recently by Leube. This consists in keeping the patient in bed for ten days. On the first day the epigastrium is carefully washed with alcohol and sublimate solution; an ointment of boric acid spread on a cloth is then applied to the same region, and over the cloth a hot flaxseed poultice. The poultice is changed every 15 minutes, and is kept applied for from 10 to 12 hours during the day. At night a cold water compress is substituted for the poultice, the cloth spread with the ointment being interposed between the compress and the integument. The poulticing is kept up for ten days, and then a cold water compress is applied at night for three weeks, while during the day the patient wears an abdominal bandage of flannel. After meals, during the convalescent period, rest in the recumbent position for one or two hours is enforced. The occurrence of gastric hæmorrhage and the menstrual period are contraindications to the use of the poultices. Leube's rule is not to apply poultices unless three months have elapsed since the last hæmorrhage. From the beginning of the treatment the patient is placed upon the use of Carlsbad water. No drugs are given, as a rule, but if the pain be severe sodium bicarbonate or bismuth may be administered. Nourishment is given five times daily, and during the first ten days is composed of boiled milk, Leube's meat solution, and softened, unsweetened zwieback. The following week there is added to this dietary soups made of rice or sago, thoroughly softened by boiling in milk with white of egg, raw or soft-boiled eggs, calf's brain, and boiled chicken. Other tender meats are gradually added, and after the fifth week the diet of health is resumed. Leube has treated 556 cases of gastric ulcer on this plan, with a mortality of only 2·2 per cent. Six died from perforation and six from uncontrollable hæmorrhage. The author considers that with these results of Leube's, in 75 per cent. to 96 per cent. of the cases of gastric ulcer surgery is uncalled for; in 75 per cent. surgery is meddlesome, because this percentage is cured by a single course of this line of treatment; in the remaining 21 per cent., which represents the cases merely benefited by a single course of treatment, the method should be repeated once, twice, or even three times before considering the question of operation.

The Prognostic Value of the Diazo Reaction in Enteric Fever.

J. D. Rolleston (*Lancet*, February 4th, 1905) remarks that the greater certainty attached to Widal's reaction in enteric fever has to some extent thrown into the shade the value of Ehrlich's diazo reaction in the diagnosis and prognosis of this disease. The writer bases his remarks upon the reports of 65 cases of enteric fever in which the diazo reaction was used. A positive reaction in enteric fever is first obtained about the fourth day of the disease, and tends to disappear by the end of the second or in the course of the third week. Its persistence beyond that period only occurs in severe cases, and in spite of a fall of temperature indicates that the infectious process is still active and that recrudescence or relapse is imminent. The writer agrees with Oppenheim and Loeper in opposition to Rivier, that an intense positive reaction does not necessarily point to a severe form of the disease, but it is the persistence of a positive reaction that characterises a severe attack. Daily examination of the urine will show that the commencement of lysis occurs simultaneously with the disappearance of a positive reaction, or succeeds it by an interval of varying duration. Speaking generally, so exceptional is it for the disappearance of a positive reaction not to be followed at a short interval by a decided fall in the temperature, that a persistent pyrexia with a negative reaction indicates a secondary infection, or an impermeability of the kidney to the colouring matter, this latter, according to Ehrlich, constituting a grave sign. Thus, in a series of the author's cases in which aggravation of the general condition occurred after disappearance of the positive reaction, three died of toxæmia, two from hæmorrhage, one from perforative peritonitis, and one from lobar pneumonia. The reaction is also of service in enabling one to arrive at the duration of the disease. A decidedly negative reaction in an undoubted case of enteric fever indicates that the patient has in all probability been ill for at least 14 days. A positive reaction, on the other hand, in the absence of a relapse or recrudescence, shows that the illness has lasted little more than a fortnight at the most. The reappearance of a positive reaction after a period in which it has been negative indicates the imminence of a recrudescence of the disease if the temperature has not already settled down, or of a relapse if a pyrexia has been established. A persistently negative reaction with a rise of temperature excludes the possibility of recrudescence or relapse. If the reaction, however, has become positive again it points to the presence of complications due to the specific typhoid bacillus. In other diseases in which the reaction occurs rarely, as, *e.g.*, tuberculosis, pneumonia, diphtheria, a positive reaction is of still graver omen than in enteric fever. In measles it is as constant as in enteric fever, but no prognostic value attaches to its presence or persistence.

Rectal Alimentation.

Edsall and Miller (*American Medicine*, February 4th, 1905) report some further results of their experiments on rectal alimentation. The form of food which is apparently most imperfectly absorbed is fat. If even a moderate quantity of fat could be absorbed from the lower bowel and utilised by the tissues a result of great importance in rectal feeding would be obtained owing to the high food value of fats. The authors, therefore, attempted to find some method of artificially preparing fats so that a greater degree of absorption might be secured. With this object they attempted (1) to provide the fats in the form of a soap that would be easily prepared and administered, and to investigate its absorption when given; (2) to obtain a good emulsion of fat which would remain emulsified after its introduction into the bowel, and to determine the extent to which it was absorbed. The first side of their investigations was abandoned, as they were unable after repeated attempts to find any method of making a soap which could be readily prepared for clinical purposes, or that would be unirritating. They then made some observations with an emulsion made with alkali albumin and codliver oil. The emulsion was made by taking the whites of nine eggs and an equal volume of 0·5 per cent. sodium bicarbonate solution, heating on the water bath, adding 100 c.c. of codliver oil, and shaking thoroughly for about five minutes. This preparation remains in excellent emulsion for many days at room temperature. Some experiments were made with this emulsion on a patient with hysterical vomiting. Every eight hours she received one-third of the emulsion prepared as described, and this was continued for two days. Examinations were made upon the amount of fat and nitrogen absorbed. She received 644 grm. of fat and excreted 455·47 grm., and hence absorbed 188·53 grm. in seven days, or 26·939 grm. per day. Of nitrogen she received 29·024 grm., and excreted in the fæces 20·474 grm., and hence absorbed 8·55 grm. in seven days, or 1·221 grm. per day. The amount of nitrogen absorbed, which was much less than that excreted by persons who are on an extremely restricted diet, and even much less than that usually excreted by those who are starving, was evidently much too small to prevent tissue loss. The quantity of fat absorbed was, however, considerable, and was somewhat more than the authors found in the cases treated by enemata of predigested milk and eggs. This result furnished some justification for the belief that the use of an emulsion that will not readily be destroyed in the bowel will result in a larger absorption of fat than will the use of milk and eggs, even when these are predigested. At the same time it is evident that the amount of fat absorbed by this patient was far too little to furnish the necessary amount of energy for even a person absolutely at rest; and if this method, or some modification of it, is to have any practical clinical value some means must be devised to add a considerable amount of carbohydrate in a form that will be capable of being absorbed in fair quantity, and also of adding proteid in a form capable of being absorbed in amounts sufficient to repair tissue waste. It seems possible that methods of preparation of nutritive enemata may be devised to permit of the absorption of a total amount of food having a daily value in calories of 500 to 700. This may be sufficient in some cases to prevent loss of weight, for a considerable time at any rate; but whether this means the maintenance of normal nutrition is doubtful. Nutritive enemata, as at present given, are almost certainly rarely absorbed as well as this, and usually very much less. In the opinion of the authors, the functions at present secured in most cases by nutritive enemata are as follow:—1. To provide fluids and various inorganic salts for the tissues. 2. To provide perhaps a third to a sixth of the requisite amount of food. 3. To prevent the anxiety of friends and patient that would be produced by giving no food. Whether the function of providing actual food will ever be increased, by methods of preparing or administering rectal enemata, to the point where it will be possible to prevent tissue loss in a large proportion of cases, even in emaciated patients who are absolutely at rest, is very doubtful.

The Significance of Difference in the Radial Pulses.

Sorgo (*Wiener Klinische Wochenschrift*) has examined 398 patients in the sanatorium at Alland for differences in the radial pulses influenced by variation in the position of the arms, and 31 were found to present this sign. In 10 the difference in the pulses, which was marked while the arms hung by the side, disappeared as the arms were raised. In 10 there was no difference as the arms hung by the side, but a difference became evident as the arms were raised. In five others the difference, which was marked at all times, became still more pronounced as the arms were raised. In six others there was no difference as the arms hung down, but when they were raised the pulses became very weak, and showed a great difference. In some of the cases this difference developed under observation, and is considered to be probably due to adhesion of a diseased apex of the lung to the subclavian artery. A difference in the pulses, therefore, in a case of tuberculosis may be accepted as a sign that retraction of the lung is commencing or has continued for some time.

PATHOLOGY.

The Pathology of Fat and Fatty Degeneration.

Christian (*Johns Hopkins Bulletin*, January, 1905), in a post-graduate lecture at Johns Hopkins Hospital, reviews some of the more recent work on the subject of fat and fatty degeneration. Two methods of technique are employed—(*a*) those which separate fat from the tissues, and (*b*) those which visually demonstrate the fat within the tissues. The former group comprises various chemical methods of analysis, such as the extraction of the fat by ether or other extractives in appropriate apparatus, an estimation of the quantities obtained, and a determination of the nature of the extracted substances. The second group includes the various stains used to demonstrate fat, viz., osmic acid, Sudan 3, Scharlach R, and Indophenol. Osmic acid has been longest in use, and is still most generally used for the detection of fat. It has, however, certain disadvantages, the most important of which are its imperfect penetration of blocks of tissue, the fact that it stains other substances than fat, and does not stain all forms of fat. Sudan 3 and Scharlach R stain fat red, and stain all three forms of fat and only substances of a fatty nature. The author next proceeds to speak of adipose tissue. This is found in certain regions of the body which are the normal storehouses of fat and represent the true fat organs. But, in addition, it is present in many of the organs and tissues under normal conditions. Adipose tissue is very vascular, and is not to be regarded as merely a passive storehouse for fat, but rather as a diffuse fat vascular organ, in which great activity of fat synthesis or fat analysis may take place. There are three types of fat cells :—1. A large cell containing a single large fat droplet, the cytoplasm reduced to a thin rim or membrane, the nucleus crowded to one side and flattened out to accommodate itself to the curvature of the fat droplet. Within the nucleus there is present almost always a single or several fat droplets, crowding aside the nucleoplasm and chromatin of an otherwise vesicular nucleus. At times they are so numerous that the nuclear substance is present merely as a delicate reticulum enmeshing the fat droplets ; these, however, are *not* degenerative phenomena. This is by far the most common form of fat cell. 2. The second type is a cell slightly smaller, containing not one, but several, fat droplets. The nucleus is not displaced, and there is a proportionately larger amount of granular cytoplasm. These cells occur in groups of three or four to a dozen, and were found more often in the fat of the omentum and the perinephric region than in the subcutaneous tissue. These cells are probably engaged in very active fat metabolism, and more probably fat synthesis than fat splitting. 3. A third type of fat cell is smaller than either of the foregoing, and is filled with very many small fat droplets. The nuclei are vesicular and never vacuolated. These are probably phagocytic, as they are found in adipose tissue undergoing repair.

Fat occurs in many of the organs and tissues of the body in normal conditions, and can be demonstrated by the stains above indicated. But the greatest interest attaches to the occurrence of fat in tissues under abnormal conditions. Under the influence of a variety of conditions, such as general or local anæmia, venous stasis, phosphorus, arsenic and lead poisoning, acute infectious diseases, and many bacterial infections, fat appears in cells in increased amount. This fat might be formed within the cell either from proteid or from other constituent of the cells ; or it might come from without the cell, being transported thither by the lymph or blood stream. The various pathological conditions regarded as typical examples of fatty degeneration have been submitted to careful microscopic and chemical examination. In phosphorus poisoning the cells of the liver and other viscera become filled with fat droplets, and it has long been held that this fat was formed from the cell proteid. Experiments have shown that in starved dogs, whose body fats have all been used up, phosphorus poisoning produces no fatty degeneration in the liver or other organs. In dogs which have been starved, and then fed on mutton fat, and then poisoned with phosphorus, fat appears in the liver cells, which on examination was proved to be mutton fat. Fibiger obtained the same results in chickens after phosphorus poisoning, and in rabbits after diphtheria toxin. That the fat comes from the body fat by way of the circulation is supported by finding the fat increased in the blood in cases of phosphorus poisoning. It has also been shown that the total amount of fat extracted from the bodies of two frogs, one of which was in a normal condition and the other had been poisoned by phosphorus, was the same, showing thus only a redistribution and not a new formation of fat. There is other morphological evidence to show that the fat in these conditions is transported and not formed from cell disintegration. Other investigations have shown that all the fat in the liver cells in cases of phosphorus poisoning is derived from the fat depôts, but the evidence at present available is not sufficient to enable us to say that all fat that appears pathologically is derived from sources outside the cell. There is, however, no proof at present of the existence of fatty degeneration in the sense of Virchow.

The Tuberculins from Human and Bovine Tubercle Bacilli.

Wolbach and Ernst (*Journal of Medical Research*, October, 1904) report some work done to repeat the original experiments of Koch with tuberculin upon tuberculous guinea-pigs, and to test for differences in specificity in tuberculins made from human and bovine tubercle bacilli. The cultures used were obtained directly from man and cattle—the human culture on human blood serum, the bovine culture on bovine blood serum. The tuberculin was made according to Koch's directions as soon as possible after the isolation of the cultures. The finished tuberculin was stored in an ice-chest in sterilised bottles, and for use was diluted with one-half per cent. sodium chloride solution, containing one-half of one per cent. carbolic acid. The virulence of the cultures was determined by the method of Theobald Smith. The strength of the tuberculins was ascertained by the method of Donitz, this consisting in the determination of the minimum dose of tuberculin necessary to kill a tuberculous guinea-pig within 24 hours. In the treatment of tuberculous guinea-pigs, these animals after inoculation, some with the bovine culture and some with the human culture, were being treated with one tuberculin ; while a similar set of guinea-pigs were being treated with the other tuberculin. The autopsies of the guinea-pigs used in these experiments did not reveal any difference in the character of the diseases produced by the human and bovine bacilli, beyond those dependent upon differences in rapidity and extent of the process. The authors, in conclusion, feel justified in drawing the following inferences :—1. There is no difference in specificity between tuberculins made from human and bovine tubercle bacilli. 2. The tuberculin treatment on the whole acts favourably upon tuberculous guinea-pigs. 3. There are no essential differences in the disease processes caused by the human and bovine tubercle bacilli.

PÆDIATRICS.

Interlobar Empyema.

Sir William Broadbent (*Practitioner*, February, 1905) discusses the diagnosis of this form of empyema, and gives details of two cases in which the diagnosis was verified by operation. Broadbent says that he has seen several cases in which he had formed the opinion that this condition existed, but only two in which the diagnosis was verified by operation. He has never seen one in the post-mortem room, but before proving fatal the pus would probably makes its way into the general pleural cavity. In several cases in which he had made this diagnosis the pus has burst into a bronchus; in fact, this accident is more likely to occur in the interlobar than in the ordinary form of empyema. The details of the two cases verified by operation were as follow:—Case 1.—A man, aged 60, tall and muscular, had an attack of influenza, attended by some inflammatory affection of an indefinite character of the right lung. He recovered, but a few weeks later had a relapse with return of trouble in the right lung. Very soon the general symptoms pointed to empyema, but the dulness on percussion over the lower part of the chest was but slight, and exploration at various points was negative. A correct diagnosis was ultimately made from the fact that the physical signs, slight impairment of resonance, and deficient entry of air varied from day to day, and more particularly that they shifted from the upper to the lower lobe, and back from the lower to the upper, in a remarkable way. It was inferred that there was an empyema between the lobes, which pressed upwards or downwards according to the position in which the patient lay. Careful search was therefore made along the course of the two fissures between the middle and lower and middle and upper lobes, but no definite dulness could be made out. Dulness was, however, found behind, above the spine of the scapula, and from this point towards the axilla. At length dulness could be recognised near the apex of the axilla, and a surgeon was called in to operate. A trocar was passed upwards, inwards, and slightly backwards in the dull area; pus was found, a portion of rib resected, and more than half a pint of pus escaped. The progress of the case was very satisfactory. The other case was in a boy, aged 10. The boy passed through an ordinary attack of acute pneumonia on the left side, which ended by crisis on the ninth day. The temperature remained normal for one day and then assumed a suppuration type. The physical signs now began to vary from day to day as regards auscultation, but there was a steady displacement of the heart to the right. Three negative attempts at exploration were made—one in the eighth left interspace in the anterior axillary line, one in the mid-axilla, and one just below the inferior angle of the scapula. When the first attempt was made there was absolute dulness of the whole left base up to the angle of the scapula, complete absence of local fremitus, and marked ægophony. This was on December 26th; the other two punctures were made on January 10th. On the 11th a marked area of resonance was noted in the left base, especially in front, and the left apex was absolutely dull, with no breath sounds or vocal fremitus or resonance, down to the fourth rib. On the 13th an exploratory puncture was made high up in the anterior axillary line, just below the lower border of the pectoralis major, with the arm held out at right angles to the body. Pus was immediately struck, and about one pint drawn off. An incision was made and a tube inserted. He ultimately made a complete recovery. The fluctuations in the physical signs sufficiently resembled those described in the first case to warrant the diagnosis. The amount of pus was so large that both upper and lower lobes were compressed.

Gonorrhœa and Vulvo-Vaginitis in Children.

Much has been written on this subject lately. The tendency now is to regard most of the cases of vulvo-vaginitis in children as being gonorrhœal in origin. The difficulty consists in deciding what are the distinctive staining properties of the gonococcus. It is usually taught that intra-cellular diplococci, losing their colour with Gram's stain, are gonococci, whereas other diplococci retain their colour with the same stain. In reading some of these papers, one is struck by the fact that sufficient care has not been taken to prove that the diplococci found are gonococci. One may be almost certain of the diagnosis if Gram's stain be used.

Dr. Kimball (*New York Medical Record*, November, 1903) says that there exists a remarkable predisposition to infection with the gonococcus in children, and this is greater the younger the child. Amongst 600 admissions to the Babies Hospital in New York in one year there were 70 cases of vulvo-vaginitis and 10 cases of gonorrhœal arthritis. In spite of careful preventive measures, the infection reappeared again and again; and it was found that only by complete isolation could the disease be prevented from spreading. If such isolation be impossible, it is essential that the infected napkins should be sterilised. This measure, however, often failed, and it was found safer to use napkins which could be destroyed immediately after use. Kimball reports eight cases in which pyæmia resulted from gonorrhœa in infants under three months; seven were males and one was a female. In none was there any urethritis or vaginitis; one only showed ophthalmia, and this developed after the joint affection. The gonococcus was thought to be isolated from the pus in the joints in each case. Six of the children died. The route of infection is not obvious. It was suggested that a gonorrhœal stomatitis might be the starting point. (Abstract from "Recent Work in Diseases of Children," by G. F. Still, *Practitioner*, February, 1905.)

G. F. Still, in the same article, writes on "Epidemic Infantile Paralysis," and refers to the papers published in this journal in July last year on this subject. Still is evidently of opinion that no sharp distinction can be drawn between "epidemic infantile paralysis" and "epidemic cerebro-spinal meningitis." Judging from the epidemic in Sydney, there is no doubt that the two diseases are perfectly distinct. We had an epidemic in Sydney of "cerebro-spinal meningitis" in 1899-1901, and had therefore ample opportunities of studying the disease. The epidemic of infantile paralysis commenced in Sydney in November, 1903, and was quite over by the end of January, 1904, lasting three months altogether. It then spread to the rest of the State, lasting some six months longer. As to the exact pathology of the disease, there is room for a good deal of difference of opinion, as opportunities for pathological examination are few.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Cost of Maintenance in Hospitals—King Edward's Hospital Fund—The Educational Value of History—Progress of Cremation—The University of London—Medical Schools and Hospitals.

In a recent important article the *Standard* has directed attention to the average cost of maintenance per bed in hospitals at home and abroad. Statistics on this subject are not to be unrestrictedly relied upon, and in any attempt to compare the expenditure of one hospital with another the method of calculation must in each case be the same, while the difference in the circumstances of the various institutions must also be taken into account. Under these circumstances, the calculations necessary to arrive at a just comparison would be so intricate as to make such an undertaking practically impossible. Still, the figures which are furnished give an interesting insight into a question which is of the highest practical importance to those who are interested in the financial management of hospitals, as well as to the charitable public on whose generosity their upkeep depends. According to statistics compiled by Sir Henry Burdett, it is shown that the average cost per occupied bed at the twelve London hospitals with medical schools, in 1902, was as follows:—London Hospital, £128 5s; Guy's, £122 5s; St. Bartholomew's, £120; St. Thomas's, £117 10s; St. George's, £156; Middlesex, £119 15s; St. Mary's, £115 10s; King's College, £119 10s; University College, £140 5s; Westminster, £132 5s; Charing Cross, £120 10s. Next, taking a typical London general hospital without a medical school, Sir Henry Burdett points out that at the Great Northern Central Hospital, with 137 occupied beds, the average cost was £99 5s; while in regard to special hospitals the annual cost per bed is thus figured out:—Brompton Hospital for Consumption (250 occupied beds), £127 1s; Great Ormond Street Children's Hospital (150 occupied beds), £116 15s; Royal London Ophthalmic Hospital (74 occupied beds), £158; National Hospital for Paralysed and Epileptics (171 occupied beds), £109. The Leeds General Infirmary, which is the largest provincial hospital, with 335 occupied beds, costs £79 15s. Of the Scotch hospitals with medical schools, the Edinburgh Royal Infirmary, with 725 occupied beds, costs £64 15s; and the Glasgow Western Infirmary, with 432 occupied beds, costs £70. It is difficult to make a comparison between the hospitals of London and Paris, because in France the hospitals are State-administered institutions, which come under the service of the Assistance Publique, a department which to a great extent carries out the work accomplished by the poor-law authorities in England. The Assistance Publique has to administer in Paris 28 hospitals, with a total of 13,067 beds. It derives its resources from the Budget of the city, and it also receives a considerable sum annually from the percentage which is deducted from all bets made at the *pari mutuel* betting establishments on the French racecourses. The average cost per bed per day in the Department's hospitals is 2s 9d in medical cases, and 4s 2d in surgical and maternity cases. In Germany, a distinctive feature of the hospital system is that every person taken ill has a legal right to demand hospital accommodation if it is necessary. There are in the German Empire 6300 hospitals, with a total of 370,000 beds, in which an average number of one and a-half million persons are treated as indoor patients annually. In Berlin there are three State, eight municipal, and 16 private hospitals, deriving their revenues from bequests and other charitable sources. The actual cost per bed cannot be accurately ascertained, but the approximate cost in public hospitals is 2s daily for adults and 1s 6d for children. In Vienna there are, besides many private institutions, nine public infirmaries under State management, having together 4978 beds, the Allgemeines Krankenhaus, which is the largest of all, providing accommodation for no less than 1956 patients. In the course of the year these 5000 beds are occupied by a large number of sufferers. Every patient (or, in the case of the most destitute, the Commune to which they belong) has to pay two kronen forty heller—that is, 2s—per diem, for which is provided all that the treatment demands in the way of food, medicaments, and attendance. Patients of this standing are treated in large wards containing from 20 to 30 beds. The 2s does not cover the cost for maintenance of the fabric and paying off debts. These two items amount to about 6d per bed and are borne by the Hospitals Fund, which is at present supported by a percentage of the legacy duties paid in Austria. In New York the accounts of the various institutions are not kept on an identical system, so that it is impossible to give a general comparative statement showing the average cost in all the hospitals. At St. Luke's Hospital the average daily cost for each patient was 4s 2½d in 1871, and is now 8s 7½d. The City of New York pays private hospitals 2s 6d daily for each medical case, and 3s 4d for each surgical case. The Presbyterian Hospital is probably the most representative institution in New York. Its private patients cost each £1 2s 10d daily, or, deducting extraordinary cases which demand exceptional and individual attention, 14s 4d. The patients in the general wards number 248. Here, deducting those paying 4s 2d each daily, the minimum average cost is 9s 7d. Mr. Frank Tucker, who writes with authority on the subject of hospital management, regards the question of finance as a burning one, and thinks that the crisis can only be solved by raising a fresh endowment of approximately £2,000,000. He explains the growth of the demands upon hospitals by the costliness of modern medical improvements; secondly, the scarcity of individual residences and the unsuitability of flats and hotel apartments for the treatment of disease and surgical cases, thus sending patients to hospitals who were formerly kept at home; thirdly, the excellence of the hospitals, which attracts patients who formerly preferred to be treated in their own homes. In Ottawa there are four hospitals. At the Carleton Protestant Hospital the cost of the maintenance is 3s 7½ per head per day; at St. Luke's, 3s 8½d; at the Roman Catholic General Hospital, 2s 1½d; and at the Nun's Hospital, 2s 1½d. The principal items of expenditure are food, fuel, and nursing.

A meeting of the general council of King Edward's Hospital Fund for London, for the purpose of awarding grants to hospitals and convalescent homes, was held towards the end of December at Marlborough House, under the presidency of H.R.H. the Prince of Wales. Lord Rothschild, the honorary treasurer, stated that the funds received for general purposes amounted to £67,990 18s 11d, and that the League of Mercy had provided £14,000. Mr. H. S. Smith, the chairman of the executive committee, presented his committee's report, which recommended the distribution of £80,000. Sir Savile Crossley then read a list of the amounts awarded to the various hospitals. The Prince of Wales, in moving the adoption of the report, reviewed the result of the year's work. He expressed the gratification of all concerned at the growing popularity of the League of Mercy, and assured his hearers of the unabated interest of the King in the work of the fund. In the course of his further remarks, the Prince said :—" As I anticipated last year, the public are now confronted with appeals for over £1,000,000 in connection with hospitals in London. There is, of course, a limit to what the charitable public can do, and we have had to cut our coat according to our cloth. We are only able this year to distribute £80,000, including the £1000 which the London parochial charities generously continue to entrust to us for allotment to convalescent homes. This sum is, I am only too well aware, insufficient to enable us to fulfil our original object. We could easily distribute £150,000 a year to hospitals which require the money and would put it to good use. If the expenditure of the hospitals can be decreased without impairing the extent or efficiency of the work they do, the result would be even more satisfactory than an increase in the money subscribed to support the hospitals. Waste of all kinds is a bad thing, and, as I have before pointed out, some of the hospitals certainly fail in the point of economy." In their report the executive committee pointed out that they have again done their utmost to show appreciation of the scheme for the removal of King's College Hospital. In regard to the St. Bartholomew's rebuilding scheme, the distribution committee decided that the fund could not properly be devoted to capital expenditure on behalf of hospitals possessed of endowments substantially adequate to their maintenance. As to the grant of £300 to the Central London Throat and Ear Hospital, the committee stated that they would view with satisfaction an amalgamation of the Throat and Ear Hospitals. In the event of the Metropolitan Ear, Nose and Throat Hospital, Grafton Street, amalgamating with the others, they would be prepared to consider the question of making it a grant. Attention was drawn to the desirability of removing to another site the Hospital for Women, Soho Square.

Professor Firth, the recently appointed Regius Professor of Modern History at Oxford, chose for the subject of his inaugural lecture " The Educational Value of History." In the course of his address he said history might be defined as the recorder of the life of men in society, of the changes which such societies had undergone, and of the causes which had influenced their development. In English history there was a great need for skilled workmen, for much of the printed materials remained unutilised, and masses of manuscript materials had never been properly examined. Oxford did very little to train men for this work. The modern history school was large and flourishing, but it produced very few historians. It gave men a general education of practical value by means of history, but no proper training for the study of history. Considered as a general training, it was too narrow ; more attention should be paid to English literature and economic history as explaining political history. The history of the nineteenth century and colonial history should be included. But its worst defect was that it did not fit even the best men who went through it for serious historical work. It did not give them either the special knowledge an historical scholar needed, or a scholar's habit of mind. They were taught results instead of methods ; what to remember, instead of how to find out. It was possible to give future historians a professional training in Oxford by co-operation amongst professors, university teachers and college tutors to establish post-graduate courses for the purpose. They had the men and the means ; but the difficulty was that the general training given in the history school absorbed all the time which most men spend in the University ; they had no time left for the special training which should follow it. Those who could stay longer had no sufficient inducement to take such a post-graduate course. If the University desired that the higher teaching of history should flourish in Oxford, and that men should be given not only elementary instruction in that subject, but that kind of advanced instruction which other European Universities provided, then these difficulties must be removed. They were artificial local difficulties, arising out of defects in their academic organisation, and did not exist elsewhere.

At the recent annual general meeting of the London Cremation Company, Sir Herbert Thompson, Bart., gave a short account of the progress which had been made since the inception of the company in 1902. He pointed out that the disposal of the dead by means of cremation was becoming every year more popular, and though the company was still unable, financially, to make both ends meet, if every coming year showed the same advance as 1904, it would not be long before that difficulty was overcome. Sir Herbert Thompson expressed the opinion that patience and perseverance were alone necessary to secure the ultimate extensive adoption of a system which so completely satisfied the requirements of public health, and which in all its associations was so much superior to earth burial. He thought that sentiment and custom were the chief obstacles to the more general acceptance of cremation by the general public ; but the large number of distinguished persons who had directed that their bodies should be incinerated clearly indicated, that the system already approved itself to those who were free from prejudice and who were of reflective mind. During 1904, Mr. Herbert Spencer, Rear-Admiral Heath, C.B., Madame Antoinette Stirling, Sir Leslie Stephen, K.C.B., Sir Herbert Murray, K.C.B., Lady Dilke, and Lord Hobhouse were among the more important names on the record at Golder's Green. During the year ending October 31st, 1904, 215 bodies were cremated. This was an advance of nearly 50 per cent. on the returns for the previous year.

The negotiations which have been in progress with the Universities of Oxford, Cambridge, and London for the mutual recognition of matriculation and other certificates have now resulted in a definite agreement by which, under certain conditions, the Cambridge Previous Examination and the Cambridge Senior Local Examination will be accepted in lieu of the London Matriculation Examination, and whether taken in its ordinary form or in the form of the school examination for the school-leaving certificate, will give exemption from the Cambridge Previous Examination. The negotiations are still in progress for a corresponding mutual recognition of certificates between the Universities of Oxford and London. An arrangement has been concluded with the War Office by which the Senate will, under the general control of the Army Qualifying Board, undertake the conduct of the army qualifying examination. This will be held for the first time in September in the University buildings.

In October last a committee, consisting of Sir Edward Fry, the Bishop of Stepney, and Lord Welby, was appointed by King Edward's Hospital Fund to enquire into the financial relations between medical schools and hospitals in London. This committee has now presented its report recording the result of its investigations. By the terms of reference the committee was required to ascertain how much money subscribed for the relief of the sick poor to the twelve London hospitals having medical schools was contributed by those hospitals for the maintenance of medical education, and whether any direct or indirect return for such contribution was received by the hospitals from their medical schools. The committee was also called upon to state, in the event of finding that any hospital contributed to its medical school a sum in excess of the return it received from the school, whether there were any special considerations advanced in justification of such expenditure or any general considerations which would apply to all hospitals having medical schools. The report states that no money given to King's College Hospital and University College Hospital in 1903 was contributed by these hospitals for the maintenance of medical education. In the cases of Guy's Hospital and the Royal Free Hospital, it was doubtful whether the schools could be considered as deriving any pecuniary benefit from the hospitals. In the case of all the other hospitals—viz., Charing Cross, London, Middlesex, St. Bartholomew's, St. George's, St. Mary's, St. Thomas's, and Westminster—contributions, either direct or indirect, or both, were made in the year 1903 to the schools out of the funds of the hospitals. The report proceeds to point out that it is impossible to say categorically whether the return received by a hospital from its medical school is equivalent to the contribution made by the hospital to the school. It also emphasises the importance of making use of the clinical facilities of the London hospitals for the purpose of tuition and for surgical and medical research. The general conclusion arrived at by the committee is stated in the following terms:—"The schools confer certain considerable benefits on the hospitals, and the hospitals by opening their doors to the students provide a clinical laboratory and allow the students of the school to work there. This confers on them a very great benefit, because without the admission to the hospital the students could obtain little or no clinical teaching. These mutual benefits may, we think, be fairly set off the one against the other. If that be done, as we think it fairly may be, it follows that in the case of the schools which last year received benefits in money or money's worth from the hospitals over and above the benefits last alluded to, there is no return made by the schools to the hospitals which can be treated as recouping this expenditure of the hospitals, and that the schools still remain debtors to the hospitals in respect of these pecuniary contributions made to them." The committee suggest that in future the distinction between the hospital and the school should, in every case, be clearly drawn, so that no question may arise as to the destination and application of moneys contributed, whether by the King's Fund or from any other source.

THE TREATMENT OF POST-PARTUM HÆMORRHAGE.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—The recently published *Medical Annual* for 1905 (p. 373) calls attention to Fritsch's method of treating post-partum hæmorrhage, and states that, though 30 years old, it is probably not widely known in England. I assume that a similar ignorance prevails in Australia, and so venture on this note.

I was fortunate enough to see the method quoted in the *Therapeutic Gazette* for November, 1904. Fritsch advises careful abstention from unnecessary and dangerous interference—*i.e.*, squeezing, massage, and kneading of the uterus—directly the child is born, and, should hæmorrhage supervene at the end of the third stage, the use of the *method of pressure*, which may be summarised thus:—While the patient lies on her back (1) push aside the recti and seize the uterus through the lax post-partum anterior abdominal wall, and squeeze it so as to express any accumulation of blood; (2) pass a hand to the back of the uterus, raise it as high as possible, forcibly anteflex it, and press it downwards and forwards over the pubes; (3) pack the resulting funnel-shaped pouch of skin and muscles behind the uterus with folded towels, *vel cætera*; (4) apply a binder tightly round the abdomen so as to keep the packing in place, *further bleeding being thus rendered impossible*; (5) adopt the usual restorative measures.

I was unable to find any reference to this method, even in so encyclopædic a work as Edgar's magnificent "Practice of Obstetrics" (first edition), so I accordingly entered a synopsis in my copy of that treatise. A few days later I was called by a midwife to a multipara who was "flooding after confinement." I found her blanched, exhausted, almost pulseless, and lying in a pool of blood, and I was shown apparently complete placenta and membranes, and several pints of blood. I did not delay to submit them to detailed examination. I at once adopted Fritsch's method and proved to myself that, *in this case at least*, it possessed all the merits claimed for it, viz.:—(1) Easy and instant applicability; (2) effectiveness; (3) harmlessness, *i.e.*, (*a*) no disturbance of the patient, (*b*) no danger *of causing septic infection*, as neither uterus nor vagina are invaded. It makes no provision for the removal of adherent secundines, if any; but it seems to me superior to any other method of treatment of post-partum hæmorrhage, and to be well worthy of trial in every case.—I am, etc., F. G. Griffiths, M.B.

Gundagai, N.S.W., April 28th, 1905.

HOSPITAL PHILANTHROPY.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—In continuance of Dr. McCarthy's remarks about hospital philanthropy, I should like to make a few remarks from the view of the private practitioner who has no connection with the hospitals. I reside close to a branch outdoor department of one of our hospitals that has been comparatively recently opened, and have occasion to pass it at all hours. I have resided in the said district over 20 years, and practically know "who's who," and I can assure you that I have repeatedly seen persons enter the waiting-room of that institution who were perfectly well able to pay their medical fees, and, in fact, had always paid such fees to me when I have attended them or members of their family. I also know that these people have not the slightest difficulty in obtaining the required certificate from a clergyman or other person of respectability residing in the said district, stating that he or she is in poor circumstances and unable to pay medical fees. Again, I have had persons consult me with such minor complaints as enlarged tonsils, adenoids, etc., and on my explaining to them the necessity of an operation and the amount of my fee, they have replied, "Oh! that is too much, for I can get it done at the dispensary for 1s," and actually do so.

It will undoubtedly be a difficult matter to discover a method to prevent such palpable evasions of the objects of a hospital. Some workable method might be evolved if the British Medical Association and the different medical societies in New South Wales were to discuss these matters separately, and ultimately appoint a delegate or delegates to meet together at a special meeting to consider the opinions resulting from such separate discussion. Some workable scheme to prevent these abuses that would be acceptable to the hospital committees might be in this manner formulated.—I am, etc.,

W. J. Barkas.

Paddington, April 25th, 1905.

A WOOL BOX.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—Among surgery requisites none is of more importance than cleanliness and tidiness. As an aid to these I have had made for me by Messrs. Mayer and Meltzer, of Melbourne, a very simple and handy box for keeping one's wool. The ordinary 1 lb. roll of wool is taken out of its paper covering, a spike is run into each end of the roll, and it is dropped into the box, whence it unwinds itself by revolution as required. The box is of metal, neatly enamelled, and cheap. Similar boxes may be used for rolls of lint or gauze. The boxes have given me great satisfaction.—I am, etc.,

E. Ken Herring.

Shepparton, Victoria, April 13th, 1905.

PRACTICES FOR SALE.

Sydney: Suburban prac. to be disposed of for value of residence, viz., £2750, which is a recent valuation by a city firm. Prac. has little or no opposition. Established 15 years.

Sydney: A leading suburban prac. to be sold with residence. Capital required, £2200. A great chance.

N.S.W.: Prac. in good town, wealthy district, est. 44 years, present owner 15½ years, predecessor 20 years. Cash take always over £1000. Appts., £324. This is in a pastoral and farming district, 865 ft. above sea level. Temperature: Summer, 72 deg.; winter, 55 deg. Town has a hospital. We know this prac. well, and recommend it. Price, £600.

N.Z.: Unopp. prac. returning £800 to be sold with a residence that recently cost £680. Price for both, £500. Prompt buyer wanted.

Tas.: Prac. in city of Launceston. Cash take £600, with sound foundation for large increase. Appts., £200. Price, £150. Strongly recommended.

N.B.—Doctors wanting practices in any of the States, Tasmania, or N.Z., would do well to send for lists.

Mr. F. W. LOXTON, Medical Agent,
16 O'Connell-street, Sydney.—[Advt.]

Oral Sepsis.—"EUMENTHOL JUJUEBS" (Hudson) Made in Australia.

A Gum pastille containing the active constituents of well-known Antiseptics, Eucalyptus Globulus, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic, prophylactic, reducing sensibility of mucous membrane W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after a comparative test of "Eumenthol Jujubes" and beech-wood Creasote, reports that there is little difference in their bactericidal action. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creasote." G. Hudson, Manufacturing Chemist, Ipswich, Queensland. London Agent: W. F. Pasmore, Chemist, 320 Regent-street, W. —[Advt.]

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis. — Dr. W. G. Armstrong, the City Health Officer, reports there were 418 deaths of residents in the metropolitan municipalities (Sydney and suburbs) during April, exclusive of patients in the Gladesville and Callan Park Hospitals for the Insane. The annual death-rate indicated by this figure is 9·5 per 1000 of the estimated population, or, when corrected by the inclusion of the metropolitan proportion of deaths in all Hospitals for the Insane and Benevolent Asylums (most of which are situated outside the metropolis), 10·25 per 1000. This death-rate is slightly higher than that for the corresponding month of 1904, but with that exception is the lowest experienced in April during the past ten years. Diarrhœal diseases (including diarrhœa, dysentery, and enteritis) caused 71 deaths, as compared with a quinquennial average for April of 63 from this class of disorders. The principal zymotic diseases, exclusive of diarrhœa, were responsible for 5 deaths, of which 2 were due to diphtheria and 3 to typhoid fever. Influenza caused one death, cerebro-spinal fever 1, plague 2, and puerperal fever 3. Deaths from phthisis numbered 26, which is the lowest April record for seven years. Cancer, with 35 deaths, was more fatal than usual. The same may be stated of respiratory diseases, which caused a total of 44 deaths, of which 20 were due to bronchitis and 21 to pneumonia. Bright's disease caused 25 deaths, and diseases of the heart and blood vessels 55. The number of infantile deaths was 112, which is equivalent to an infantile mortality rate of 109 per 1000 births, and is exactly equal to the quinquennial average for April. The principal causes of infantile mortality were: Prematurity, 17 deaths; developmental diseases, 17; bronchitis, 10; pneumonia, 7; enteritis, 42; diarrhœa, 3. Notified deaths of notifiable infectious disease totalled 148, of which 45 were due to scarlet fever, 51 to diphtheria, and 52 to typhoid fever.

Smallpox on the Fultala.—The steamer Fultala carried a large number of Indian coolies to Fiji to work on the sugar plantations there. Eight or nine of them were suffering from smallpox when landed. The Fultala then came to Sydney, and when inspected by the medical officer at the Quarantine Station it was found that one of the coloured crew was suffering from a modified form of smallpox. He was attacked on March 20th, but presented very few signs that he was suffering from the infection. The officers and crew were ordered into quarantine, where they were vaccinated. No further case developed.

Fever at Broken Hill.—Typhoid fever and scarlatina are very prevalent at Broken Hill. There are 36 cases of typhoid at the hospital. During the month of April there were 45 cases of enteric fever and 44 cases of scarlatina. The condition of the town is very insanitary.

Plague in New South Wales.

SYDNEY.

Seven further cases of plague have occurred since the conclusion of the statement published in the preceding number of the *Gazette*. (7) A lad employed as a street cleaner, son of Case 3, and residing on the same premises, was attacked on April 8th with pain and slight swelling in a cervical gland, very slight constitutional symptoms, presented himself at Sydney Hospital, and was admitted. Connection with the previous case, rather than definite symptoms, led to his notification on April 13th, when material was taken by puncture from the swollen gland. Smears made with this yielded a negative result; an agar culture made at the same time yielded an involuted bacillus which did not retain the stain under Gram, and which could not be morphologically recognised. A guineapig was inoculated from this growth, and subcultures were made on serum and agar; that on serum yielded a growth identical with the culture from which it was made. The guineapig died on the fifth day of typical plague. In the meantime the patient's temperature having remained persistently normal, and his feelings of illness having disappeared, he had been discharged from hospital on April 25th, by which time the swollen gland had completely subsided, and he returned to work. This was a case of ambulant plague, in which there were not at any time marked symptoms of illness, especially remarkable from the situation of the bubo. (8) A wood-worker at a timber yard, which in two preceding outbreaks has yielded plague rats and three cases of plague, married, *æt.* 24, attacked April 16th. (9) A carter at a produce store, Redfern, residing in Darlington, married, *æt.* 29, attacked April 17th. No plague rats were found at either place, but patient almost daily visited a wharf at which many plague rats have been taken during the present ourbreak. (10) Brother of No. 9, and the proprietor of the produce store; same residence; married, *æt.* 40; attacked April 21st. He frequented two plague-infected wharves at least, and had visited both three and two days before attack. (11) Kept a wood and coal yard within the city; lived at the Glebe, where his horse was stabled; married, *æt.* 18; attacked April 23rd. No rats were found either at residence or woodyard. (12) Labourer, *æt.* 28, resided in Balmain (an uninfected quarter); attacked April 24th; employed at the repairing wharf of a steamship company, also situated at Balmain. He had been at work for several weeks on a steamship in process of refitting; it was learned on good authority that about 24 rats had been taken dead from the forepeak during about a week prior to patient's attack, and 10 putrid carcases were found on search after notification; a few rats were caught after notification, but plague was not discovered in any of them. Patient had worked in the forepeak. The vessel was thoroughly fumigated, and all remaining rats destroyed on April 29th-30th. (13) Labourer, married, *æt.* 44; residence Balmain; employment the same as in Case 12; was attacked May 4th.

The number of rats and mice killed has been between 3000 and 4000 a week since the rat depôt was reopened on April 1st. The intelligence staffs have during the same period returned about 700 a week, all of which were examined bacteriologically. Plague rats were met with from time to time, but it is understood that the epizoötic area has apparently not extended. To this an exception occurred in the case of Woollahra, at a place distant about four miles from the centre. The infection started at a cowkeeper's, to whose premises it was doubtless conveyed with feed; many plague rats were found there and on adjoining premises, and later at two houses situated at several hundred yards distance in different directions. The municipality has taken active steps to kill rats, and has a staff of ratcatchers; the first infected specimen was detected in carcases referred by it to the central laboratory. So far no case in man has occurred in that district.

NEWCASTLE.

Further cases occurred at this city, after an interval of 22 days, during which the intelligence staff placed at disposal of the Medical Officer of Health had gathered plague rats from many rather widely-separated premises. (5) D.D., married, *æt.* 40, resided in a distant suburb from which no plague rats have been got, and was employed at that produce store in connection with which Case 1 occurred. He was attacked at 7 a.m. on April 22nd, and lay ill at home till April 27th, when he died in the early morning. Dr. Leslie, who had been called in, was unable to certify the cause of death. By direction of the Coroner, and in association with the Medical Officer of Health (Dr. R. Dick), he made a post-mortem examination of the body during the afternoon of the same day. Death from plague was easily established. D.D. was employed as storeman in the hay and corn branch of the store above referred to. The main premises having been owned by the firm, were originally in tolerable condition, and had been put into good order after occurrence of the preceding case; but the hay and corn branch was accommodated in wood and iron buildings which were merely leased. These buildings were extensive; they appeared to the man in the street to be in momentary danger of falling down, and were so constructed as not merely to afford ample harbourage for rats, but also so as to make it impossible to be certain that the cleansing at that time done had been thorough; additionally, the danger of reinfection could not be guarded against. It appears that no power exists to deal effectually with such premises, either under the Municipalities or the Public Health Act, since they are not "inhabited buildings." Evidently the law requires instant amendment. (6) Unfortunately, Dr. Leslie, *æt.* 26, cut himself in the course of making the post-mortem on D.D. He was aware of two slight cuts on the left hand, and these were cauterised with pure carbolic acid at the time of their infliction. About 24 hours later he began to be ill, and at the same time felt discomfort in the right axilla, where a bubo subsequently developed. This drew attention to his right hand, where a slight breach of the epithelium was discovered; there had been no local reaction, and there were no signs of lymphangitis. He was admitted to the general hospital and, we are happy to be able to say, is now in progress of recovery, after a very severe illness and much anxiety. As soon as the President of the Board of Health (Dr. Ashburton Thompson) became aware of Dr. Leslie's illness, he desired Dr. W. G. Armstrong to proceed to Newcastle, in consultation with the medical men on the spot, to whom his considerable experience of plague was likely to be useful.

It is interesting to note that cauterisation of the slight cuts on the left hand appears to have been efficacious, and that the period of incubation was almost exactly 24 hours only. (7.) E.C.J., male, *æt.* 17, employed as a carter by a baker in Hunter-street West, was suddenly attacked May 2nd, in the morning. His stable stood between two other premises, from both of which plague rats had been got during a few preceding days. He died May 6th. (8.) W. McM., male, *æt.* 43, attacked May 5th, was employed at one of the adjoining premises referred to in connection with case 7. Three plague-rats had been taken from them on May 1st, and several putrid carcases were discovered in course of cleansing operations subsequently carried out.

It is understood that the local authorities are acting with considerable energy, in which they are assisted by the Medical Officer of Health and some leading workmen of experience in plague work, lent by the Department of Public Health, but that the state of the city furnishes strong evidence not merely of the results of neglect to secure building laws, but also of lax execution of powers possessed by it under the Public Health Act. The latter contain provisions under which very much could have been done during past years had they been steadily acted upon, towards repair or closure of defective dwellings. It is also said that the harbour front is one vast asylum for rats, which exist in extraordinary numbers; while the many old, ill-constructed and unprotected stormwater drains and sewers which open upon it afford them highways of travel to the nearer parts of the town. To such parts the epizoötic area seems for the present to be nearly confined.

ULMARRA (Clarence River.)

The last case was attacked January 27th. At the time of going to press we learn that two further cases have been reported in the persons of a Hindoo and of a white man, but these reports await confirmation. Both patients were removed to Grafton Hospital, where they have died. They came from a village known as Coldstream, which stands a short distance beyond the line to which it was thought necessary to extend the cleansing operations, which were described in a previous number of the *Gazette*.

BALLINA (Richmond River).

The last and only case which had occurred in this town was attacked February 3rd. On April 22nd, J. D., male, *æt.* 19, farmer's labourer, was attacked. He was admitted to the isolation ward at the general hospital, under care of Dr. Corlis, who made a bacteriological diagnosis, which was subsequently verified by reference to Sydney, and he died April 28th. He was employed by a farmer who lived about five miles from the town. In the course of cleansing, among rats and mice found were four which were infected with plague. Patient and another man, who was not attacked, slept in a hut, part of which was used as a feed store. (3.) L.W., female, *æt.* 25, servant at a bank in the town, was attacked May 2nd, and died on May 8th in the hospital.

LISMORE.

This town is the capital of the Richmond River district; it lies at the head of navigation, a long distance above Ballina by water, but less than thirty miles from it by road. Woodburn is a village on the banks of the river more or less midway between the two. About the middle of March a veterinary inspector of the Department of Public Health forwarded two carcases of rats found at one of the hotels in Woodburn for examination; they were plague-infected. A laboratory assistant, a sanitary inspector, and a foreman were sent up. They took a very large number of rats (*M. rattus*), all of which were examined and found to be healthy; but on April 10th they found one in the yard of an hotel adjoining that first-mentioned which was infected. Work was continued for another ten days; no more infected rodents were found, and, the district having been thoroughly searched, they ceased. On May 5th information was received at Sydney of occurrence of a case of suspected plague at Lismore, where none had previously occurred. (1) G.E., m., *æt.* 26, was suddenly attacked May 1st; form bubonic; diagnosis bacteriologically established; died May 6th. The patient was employed at a general store in the main street of the town. (2) D.C., m., employed at the same store, was notified May 6th, removed to isolation ward of the general hospital May 8th, and died the same day. The Assistant Medical Officer of the Government, a sanitary inspector, ratcatchers and gangers, were despatched. Dr. Millard after arrival briefly notified the cases of (3) A.J.T., f., *æt.*, 35; (4) F.E.S., m., *æt.*, 41; and (5) C.A., m., *æt.*, 12; so far only clinically diagnosed. Details concerning this outbreak are not yet to hand.

It will not escape attention that all the infected places were either sea-ports or river-ports at which sea-going vessels called; and that no ground for suspecting transport to any of them of plague-infected persons has resulted from the minute enquiries directed by Dr. Ashburton Thompson, and the apparently complete knowledge of the circumstances thus acquired. We venture to express a hope that at no very distant date English sanitarians will begin to revise their views of the ætiology of this disease which, re-enforced by the report of the Plague Commission in India (July, 1901), have been proved by ten years' experience to be but a broken reed in the hands of those officers of the Government of India, who, it must be presumed, have been bound by them in their futile attempts at practical prevention. In these days ten years is a long time; they cannot much longer delay to examine seriously the records published in this State in and from 1900, nor fall into line with all Continental authorities, who in the course of the five years since elapsed have adopted them. There is not merely danger from rats; rats constitute the only danger which is worth serious consideration in relation to preventive measures.

Queensland.

Bubonic Plague.—Dr. B. Burnett Ham, Commissioner of Public Health, reports that for the week ending April 15th, 1905, no cases of bubonic plague had occurred in Brisbane. Number of cases to date, 23. The last case reported occurred on April 1st, 1905, and the last case discharged from Plague Hospital on April 20th. Since that date an outbreak of plague has occurred at Ipswich, seven cases being traced to infection of some fodder at stores. One case has terminated fatally. In connection with the outbreak of plague at Ipswich the following regulations have been published:—1. The council of the city of Ipswich shall take all such reasonable measures for the extermination of rats within its own area, as the Commissioner of Public Health shall from time to time, by written notice, specify and direct. 2. The council of the city of Ipswich shall employ, at its sole expense, such sufficient number of persons for the purpose of rat destruction as the Commissioner shall direct. 3. The council of the city of Ipswich shall provide that the bodies of all rats caught or found dead by its employees shall be so labelled as to indicate in each case the place or premises where such rats have been so caught or found. 4. Every occupier of premises within the city of Ipswich shall, by catching, trapping, and baiting, prevent, so far as possible, the harbourage of rats in such premises. 5. No owner or occupier shall throw, place, or leave, or suffer to remain upon his premises within the city of Ipswich, any refuse or waste matter or thing which would have a tendency to encourage rats to visit or frequent such land or premises, or form or afford shelter or harbourage for rats.

HOSPITAL INTELLIGENCE.

Queen Victoria Homes for Consumptives, New South Wales.—At the annual meeting held last month, the annual report was presented, of which the following is a summary:—

The funds have been materially increased during the year; the enthusiasm which was aroused at the meeting convened at "Cranbrook," late in 1903, was maintained, and many suburbs worked hard. Owing to the efforts put forth by a committee of ladies and gentlemen, a horticultural fête was held in the Old Exhibition Buildings, and from this the sum of £1300 was received. Outdoor shelters have been kindly donated by the following:—The late Lady See, Mrs. William White, Mrs. Isabella Dwyer, and Mrs. Preston; and Mr. Frank Grimley has defrayed the cost of two shelters. These have proved to be admirably adapted for the treatment.

Since in a number of patients applying for admission the disease was too far advanced, a circular has been drawn up, setting forth what constituted a typical case for admission, and a copy forwarded to each medical man in the State.

At Wentworth Falls a septic tank system is in process of installation. The tank is placed beyond the front paddock, well away from the Home, and in a position to irrigate a fair area of ground, and there is a good outfall for the disposal of any overflow. Early in the year Mr. P. W. Rygate, B.E., kindly consented to act as hon. engineer, and under his supervision and in accordance with recommendation of Mr. Pridham, Engineer to the Water and Sewerage Board, a large reservoir has been constructed to conserve water for the use of the Home. Plans and specifications were drawn up by the hon. architects for the building of additional wards to accommodate sixteen more patients and six additional shelters. Tenders were called for the building of the wards, and one for the sum of £3485 was accepted.

The number of applications for admission to the Homes has fallen off considerably during the year. Dr. Sinclair Gillies has been appointed an additional hon. medical examiner, and the hon. physicians at the Sydney, Royal Prince Alfred, and St. Vincent Hospitals have kindly consented to act as additional hon. examining medical officers.

Owing to Messrs. R. Towns and Co. relinquishing their business premises at 32 Jamieson-street, the House Committee met there for the last time in November last. The Board of Health has kindly granted the use of a room for the interviewing and examining of patients applying for admission, and the Carrington Convalescent Home Committee have kindly given permission for the committee to hold their meetings at their office pending other arrangements.

Early in the year Miss Hulme was selected to fill the vacant post of matron, and she has filled the position with acceptance to the committee. The bed donors' beds have had brass plates affixed, with name of donor engraved thereon; and the beds that have been subscribed for by various suburbs during the year have a distinguishing plate affixed to each.

A quantity of surplus products from the Hawkesbury Agricultural College were, owing to the kindness of the late Government, sent to the Home, and proved very acceptable, apart from helping materially to diminish the expenditure. We regret that the present Government could not see their way to continue these supplies, such having been stopped when the present Ministry took office.

Towards the end of October, Mr. Goodlet placed under offer to the committee the whole of his estate at Thirlmere. A sub-committee was appointed, and after careful consideration finally recommended the executive committee to make an offer to Mr. Goodlet. This has been done, and Mr. Goodlet accepts the committee's offer. He donates the present Home at Thirlmere, with immediate grounds in which it is situate, and he accepts £3000 for the remainder of the estate, consisting of some 320 acres of land, together with his country residence "Harmony," a substantial brick cottage, and all other improvements.

The total number of beds available in the Home at Thirlmere has been 41—12 on the female side and 29 on the male side. A slight reduction has to be made in the beds owing to overcrowding. During the year there have been 74 male patients and 31 female patients admitted—a total of 105. A total of 101 were discharged, viz., 69 males and 32 females. Remaining in Home on 31st December, 1904—males, 28; females, 12—40. Of those discharged 35 were benefited, 13 were unrelieved, and 3 died. This is by far the best result since we have had the management of the Home. The daily average was 39, and the average cost per bed per annum was £41 3s 10d.

As heretofore, a number of those applying had to be refused, since they were deemed unsuitable owing to their being afflicted in the later stages; and once more we have to draw attention to the fact that no step has been made by the Government towards providing proper accommodation and treatment for advanced cases, Liverpool Asylum still being the only refuge.

MEDICAL REPORT.—KING'S TABLELAND SANATORIUM FOR 1904.

During the year 1904, 53 cases have been admitted to the Sanatorium and 51 discharged. The year commenced with 20 patients in residence and ended with 22, the accommodation having meanwhile increased by the addition of two beds. The "Hugh Dixson Shelter," or open-air châlet, was opened early in January, and the "Winifred Preston Shelter" early in June; and these two shelters have proved most useful additions to the accommodation of the Home.

The average daily number of beds occupied throughout the year was 21.

Districts from which patients were admitted.—Of 53 cases admitted 45 came from Sydney and neighbouring suburbs, and 8 from country districts; 39 were natives of New South Wales, 9 of Great Britain and Ireland, 3 of other Australasian colonies, 1 of New Hebrides, and 1 of Germany. All but two had been domiciled in this State for many years, and had contracted the disease in New South Wales.

Age of patients admitted varied from 16 to 59 years; 83 per cent. of the patients were between the ages of 20 and 40, again showing the great incidence of the disease at the most valuable part of a man's life.

Occupation brings out the greater incidence of the disease amongst indoor as compared with outdoor workers. Of 53 admissions, 37 were employed indoors all day (clerks, warehousemen, etc.); 16 belonged to outdoor trades or occupations.

The treatment adopted was again on purely hygienic or "open-air" lines, and the following table gives the stage of the disease on admission, and the results of treatment in 51 discharged cases.

Under the heading "early stage" I have included not only cases of simple tubercular infiltration, but also cases of limited deposit with slight softening. Stage II. includes all cases intermediate between stages I. and III. Stage III. includes all cases which had proceeded to cavitation of the lung as detected by physical signs. Cases complicated with tubercular infiltration of larynx have been placed in stage II., and cases with distinct tubercular ulceration of epiglottis or larynx in stage III., irrespective of perhaps lesser damage found in the lungs on physical examination.

TABLE I.—SHOWING STAGE OF DISEASE AND RESULTS OF TREATMENT IN 51 DISCHARGED CASES.

Stage of Disease.	Total Cases.	Disease Arrested.	Much Improved.	Improved.	Unimproved.	Died.
I. "Early"	13	12	1*	—	—	—
II. "Intermediate" ..	33	18	8	4	3	—
III. "Advanced" ..	5	—	2	—	2	1
Total	51	30	11	4	5	1

*Would probably have proceeded to arrest, but left after only 19 days' residence.

By "arrest" of the disease is meant complete disappearance of all signs of active disease, registration of normal temperature, weight, pulse and respiration; disappearance of tubercle bacilli from the spit (if any), and a capacity for exertion approaching that of an ordinary individual.

For purposes of comparison, it may be said that the early stage in above table corresponds roughly with stage I. of Turban's classification; stage II. in above table includes several cases which, from the extent of consolidation present, would be included in the advanced or stage III. of Turban.

The following table shows the extent of the disease in 51 cases discharged, and indicates the larger proportion of recoveries in cases where the disease was limited in area. The number of pulmonary lobes partially or otherwise affected is stated quite irrespective of the nature of the tubercular lesion contained therein, whether infiltration, softening, or cavity.

TABLE II.—SHOWING EXTENT OF DISEASE AND RESULT OF TREATMENT IN 51 DISCHARGED CASES.

Number of Lobes Affected.	Total Cases.	Disease Arrested.	Much Improved.	Improved.	Unimproved.	Died.
1	13	11	2	—	—	—
2	17	13	3	1	—	—
3	17	6	4	3	4	—
4	4	—	2	—	1	1
Total	51	30	11	4	5	1

NOTE.—In this classification the right middle lobe is included with the right upper lobe.

It will be observed from the above tables that of 51 cases discharged, 41 were either cases of complete arrest or much improved; and of these, 38 were able to return to full working conditions or to selected light employment. Only six cases failed to improve in one or other direction from the treatment. Of these, one died from pneumothorax after 28 days' residence.

The duration of symptoms previous to admission varied from two months to eight years; the average in 51 cases worked out at 11 months 26 days.

The average residence during treatment of 51 cases was 133 days; the shortest and longest residences respectively were 18 and 395 days.

The average residence in 30 cases which proceeded to complete arrest of the disease was under four months (119⅔ days).

Increase of weight may generally be taken as a sign of improvement, and the gain registered in 45 improved cases varied from 1 to 35 lbs. The average gain in weight of 30 arrested cases was 14¼ lbs., or just over a stone each.

The following complications were dealt with in the 51 cases under consideration:—Tuberculosis of tonsils and fauces 1, tuberculosis of tonsils and infiltration of cords 1, ulceration of epiglottis and infiltration of cords 2, ulceration of cords 1, infiltration of larynx 4, chronic hyperæmia (non-tubercular) of cords 2, tubercular adenitis 1, tubercular arthritis 1, fistula in ano 3, ischio-rectal abscess 1, asthma 2, pneumothorax 1, nephritis 1, tubercular meningitis 2, tubercular cerebellar tumour and multiple cerebral tumours 1, simple orchitis 1, tubercular epididymis 1. In some cases a combination of these complications was present. Of 24 cases with complications only 8 proceeded to arrest of the disease, as compared with 22 arrests in 27 non-complicated cases.

A history of hæmoptysis, more or less severe, was given in 21 cases, and of these 13 made an apparently complete recovery.

A family history of consumption was elicited in 19 of 51 cases; 12 of the 19 made a complete recovery, in spite of the fact that the family was, in some cases, riddled with the disease.

Tubercle bacilli were discovered in the sputum, either immediately before or after admission in 50 out of 51 cases. In the remaining case the diagnosis was founded on reaction to tuberculin in association with certain physical signs.

The principal predisposing factors in the cases under consideration were influenza, pneumonia, dusty occupations, and in a few cases, alcoholism.

History of probable infection was traced in 17 out of 51 cases, 2 from "house-infection," and 15 from members of the same family or workshop.

I cannot conclude this report without again pointing out the necessity of patients seeking treatment at the Sanatorium while the disease is still in the early stage, if good permanent results are to be obtained. Anything else than complete "arrest" of the disease is little use to the working man who has to earn his daily bread. It is certainly something to the credit of the consumptive worker that he so often perseveres at his employment till he can toil no longer; but this does not alter the fact that such a policy is generally fatal. The above tables of recoveries in the early as compared with the later stages speak for themselves, and if the consumptive worker has any wish for permanent and comparative speedy recovery, he must be prepared to make the necessary sacrifice of time and money while the disease is still in an early stage. Delay means not only extension of the disease in the lungs and continued loss of resisting power, but also possible dissemination of the tubercle to the other organs of the body. Many of the complications mentioned in above report occurred in patients with long-standing pulmonary disease, and in some instances it was these secondary complications, and not the original disease, which sealed the final issue.

I also wish to state that many of the cases which have fortunately made good recoveries at the Sanatorium are unable to risk an immediate return to the conditions of city life, and I trust, in time, an "after-care association" may be formed, whose object will be to endeavour to secure for these men suitable light employment in country districts.

In appendix II will be found the meteorological observations recorded at the Sanatorium during the year, and I take the opportunity of thanking W. A. Lenehan, Esq., Acting Government Astronomer, for the table of relative humidities, and for the continued loan of the instruments.

M. McIntyre Sinclair,
M.D. (Glas.), D.P.H. (Cantab), and Fellow Roy. Inst. of Pub. Health,
Resident Medical Superintendent.

December 31st, 1904.

Melbourne Hospital.—The necessity of increasing the accommodation at the Melbourne Hospital for special cases was discussed at the meeting of the committee last month. A letter was received from the honorary medical and surgical staff suggesting the desirability of providing two more wards for female surgical cases, and if the proposal was agreed to they would require an additional sister and two nurses. It was recommended that wards six and seven should be set apart for the purpose, and that the staff be increased. The advisability of constructing a dark chamber at the hospital for the treatment of blindness and other special cases has been under consideration. The work has actually been commenced and is to be carried out as soon as possible. The President, Mr. F. R. Godfrey, referred to the near approach of the fiftieth anniversary of the opening of the institution, and suggested that they should ask the Governor-General to request his Majesty the King to permit them to call the hospital the Royal Melbourne Hospital. He thought it a very fitting proposal, in view of the fact that it was the oldest institution of the kind in the State. Dr. T. B. McInerney, who seconded the motion, said that the title had been conferred on a number of hospitals in the United Kingdom. The motion was agreed to.

Bega Hospital, New South Wales.—From the annual report for the past year we learn that during the past year considerable progress has been made in the erection of new buildings. A handsome brick structure, consisting of a commodious male ward, an overflow ward, and a splendid operating theatre, has been completed. Among the gifts for furnishing the operating theatre were a surgeon's stool from Dr. Bruce, and a glass top table for instruments and dressings from Dr. Marshall. The aim of the committee of management is to replace the rest of the present buildings with a more modern structure in keeping with the part already erected, and with this object in view they appeal for increasing support from the people of the district.

Moree Hospital, New South Wales.—The nineteenth annual report shows that 101 patients have been treated at this hospital during the year 1904. The income of the hospital, exclusive of Government grants, amounted to £376 13s 4d, and with State aid £813 11s 3d. In October last, Dr. Tomlinson, who has been medical officer for the past nine and a-half years, resigned his position, and Dr. Romeo was appointed in his place. The committee desire to place on record the zeal, skill and attention with which Dr. Tomlinson discharged his duties during the long period in which he served the hospital.

Sydney Hospital.—At the last monthly meeting of the board of directors the hon. treasurer reported having interviewed representatives of the Government on the question of the new subsidy proposals, and stated that an agreement had been arrived at informally which he thought would prove acceptable to both the Government and the board. The president stated that it had been reported to him that the Government was contemplating the withdrawal of the annual grant for carrying on the Regent-street dispensary, but that nothing official had yet been made known to the hospital.

Maitland Hospital, New South Wales.—The new hospital which has been built and furnished at West Maitland at a cost of something like £10,000 will take the place of one that was erected 60 years ago. It is situated in front of the old hospital. The main building consists of two stories, containing two male wards, having accommodation for 14 beds each, and two female wards, supplying space for 10 beds each. Bathrooms and lavatories are provided at each end of the wards. Separated from these by escape stairs and landings are towers for washing-up, quarters, etc. The wards open on to spacious balconies with French light windows large enough to admit of beds being wheeled through them. Nurses' rooms overlook each ward, and on the ground floor are anæsthetic and recovery rooms. The floors and walls of the operating theatre are tiled, and the theatre itself is supplied with the latest and most modern appliances, including a complete sterilising plant. There are two private wards on the first floor, and the total accommodation is for 50 beds. The old building is to be used as an administrative block, and is connected to the new structure by broad corridors. The new hospital is of brick with cement dressings, and is covered with galvanised iron. The old building has also been remodelled, and now provides accommodation for the board of management, the officers of the institution, surgeon's room, dispensary, X-rays, and the children's ward.

Royal Hospital for Women, Sydney.—On May 3rd the Royal Hospital for Women was officially opened by her Excellency Lady Northcote. The site is a large and commodious one, on the Glenmore-road, Paddington. An entrance has also been secured from Oxford-street. The new building is only a portion of an extensive scheme as provided for in the original plans, but which will be carried out in sections as funds permit. The portion just completed consists of a ward block, and also portion of the operating block. The ward block, which has accommodation for 56 beds, is four stories in height. The arrangements of each floor are in a large measure similar. There is a main ward to each flat of 12 beds, with a balcony on both sides, and attached to each are baths and full lavatory accommodation at each end. A fire escape is also provided in this portion of the hospital. In addition to the main section of the ward, there are special rooms or wards for two beds in each, with lavatory adjuncts; also an examination room in direct communication with both general and special wards, a day room, linen store, a sisters' room, together with accessories. The large ward corridor, from which the above-mentioned rooms are reached, is cross-ventilated, and leads to the main lobby, which is circular in design, and from which access is gained to the staircase and lifts connecting with the floor. At an angle with the ward corridor will be found the main corridor of this and future portions of the hospital. It is eight feet wide, and runs the full length of the building. Between the ward and operating blocks this corridor becomes a covered way on all floors except the upper one, and is so arranged that it can, by the use of roller shutters, be opened and closed to any distance. At the extreme eastern end of this main corridor is the operating block, or rather the portion of it that is built. The surgical wards, which are part of the complete drawings, have not yet been erected. The portion completed consists of a building of three floors. The basement is for the time being to be used as a receiving ward, though its future use will be for quite a different purpose. On the ground floor is the operating theatre, with anæsthetic rooms, surgeon's room, sterilising and students' room, etc. Attached to these rooms are the latest and most improved methods connected with an up-to-date operating theatre. On the first floor is another though smaller operating room, a surgeon's room with bath accommodation, and other necessary apartments. On the ground and first floors are special wards for one bed. These will be used for surgical cases. The ventilation of the wards is by natural means, inlets being slightly above the floor level beneath the head of each bed, and exhausts near the ceiling. The ventilation of each ward is distinct in itself, so that it can be regulated independently of the others. All angles throughout the building have been rounded, and efforts have been made to render the wards and rooms as antiseptic as possible. For artificial lighting both gas and electricity have been introduced, and the power for running the lift is electric. The exterior of the new buildings is simple in design. The walls are brick, with stone dressings and slate roofing. The floors are solid, being wood flooring on terra lignum and steel joists. The interior faces of all walls and ceilings are covered with asbestic plaster. The work has been carried out under the supervision of the architect, Mr. G. Sydney Jones.

Lady Northcote arrived at the hospital by the Glenmore-road entrance, and was received by Sir Arthur Renwick, president of the society, and the board of directors, the ladies' committee, and the officers of the society. Sir Arthur Renwick said for 87 years the Benevolent Society of New South Wales had endeavoured to meet the requirements of the public in regard to the relief of poor women, to the best of its ability, with the means at its command in the ancient building, erected by Governor Macquarie on the site recently resumed by the State Government for the new Central Railway Station. With the funds placed at its disposal by the resumption, the society had erected at Thomas-street, Ultimo, a large and commodious receiving house, to accommodate poor women with infants, sick and deserted children, and to provide for the administration of outdoor relief. In order to provide a separate and distinct establishment for the reception of the class of cases to be hereafter admitted to the hospital, the society had erected the hospital building, which the directors and the ladies' committee had the honour to request Lady Northcote to declare open. Sir Arthur Renwick then presented Lady Northcote with a golden key, on behalf of the board of directors and the ladies' committee, and she declared the hospital open. Lady Northcote subsequently declared the fête open. Sir Arthur Renwick made an appeal on behalf of the institution, and pointed out that the ladies' committee, the organisers of the fête, were hopeful that they would succeed in raising the balance of about £2500, the sum required to properly furnish and equip the new ward block and operating theatre.

TO LET.—Suite of Rooms, lately occupied by Drs. Bowker and Jamieson, 157 Liverpool-st., Sydney.

Broadmeadows Sanatorium for Consumptives, Victoria.—A visit of inspection was recently paid to the Government consumptive sanatorium at Broadmeadows by the Minister for Public Works, Sir Samuel Gillott; the Secretary for Public Works, Mr. Davidson; Dr. Norris, and Dr. Drake, the appointed medical superintendent of the institution. Gratification was expressed at the almost completed state of the sanatorium buildings. Dr. Norris was well pleased with the tents put up for the accommodation of the patients, and stated that they were well suited for the treatment of incipient cases of tuberculosis. The main buildings erected are eight tent-like structures for the patients, doctor's and matron's quarters, a large dining hall, a kitchen, and a three-roomed shell of a cottage for cooks and domestic servants. The site is about half way up a long gradual incline, in hilly country, about four miles and a-half due west of the Broadmeadows railway station, and two miles and a-half north-west of Broadmeadows township. The nearest house is quite three-quarters of a mile away, and is hidden from view by the gum trees with which the locality abounds. The tent buildings each contain six beds; good sail canvas on the roof and thin hessian on the walls is nailed tightly across firm wooden supports, the roof projecting a yard all round, forming less a verandah than a shade for the walls. Air has free ingress at the top of the roof, and the tent is floored roughly with wood. The erections now up have cost £2000, and the water supply has still to be arranged for. A number of men and horses were employed deepening and increasing the size of a large waterhole about 400 yards from the buildings, into which the drainage of the hillside runs. It is proposed to erect a windmill, and pump the water that will collect here up to tanks and receivers at the buildings.

Austin Hospital, Melbourne.—At the last meeting of the Austin Hospital house committee the alterations to the Kronheimer wing for consumptives required by the Board of Health were considered, and it was decided that a recommendation be made to the full committee that they should be carried out immediately. The requirements deal with a number of small points, such as the shrinkage of the rounded wood quadrants at the join of the walls to the floor, the providing of fireproof doors for the lift, and he knocking through of some perflation vents. The committee considered that all the alterations required could be made for £25 or £30. Before the signing of the contract for the erection of the building the committee received a list of the board's requirements from the late Dr. Gresswell, at that time chairman of the board. The committee was able, through this, to model the building upon the board's requirements, and the secondary list now dealt with effectually disposes of any objections that can be raised against the suitability of the sanatorium for its designated purpose.

Brisbane General Hospital.—At the last meeting of the Brisbane General Hospital Committee the medical report for the three weeks ended May 6th showed:—In-patients: Remaining under treatment at date of last report, 242; since admitted, 189; discharged—cured or convalescent, 88; relieved or improved, 100; *in statu quo*, 7; to the reception-house, 5; died, 18; remaining under treatment, 213. Out-patients' attendances: At the hospital, 1562; at South Brisbane Branch Dispensary, 207. Convalescent Home: Remaining under treatment at date of last report, 12; since admitted, 37; discharged, 38; remaining under treatment, 11. The treasurer's report showed the overdraft at last meeting to have been £2637 0s 6d; receipts, £155 0s 11d; expenditure, £494 15s 2d; present overdraft, £2976 14s 9d. The secretary furnished a report of the conference on 3rd instant between delegates from the city of Brisbane, the towns of Windsor and Sandgate, and the shires of Wynnum and Kedron, and the Home Secretary (represented by the Hon. D. F. Denham), regarding agreement for the treatment of infectious diseases at Wattlebrae Hospital. The committee consented to the agreement being three years instead of ten years. A letter was received from the Home Department forwarding an estimate of the Works Department for renovating the mortuary, amount £74 10s, and proposing that the committee bear two-fifths of the cost.

Notes and Queries.

PRACTITIONER asks for our ruling on the following questions:—

The Lunacy Act for Tasmania for 1858 provided *inter alia*:—Clause 3: "That Commissioners shall be appointed," not less than five in number, "of whom two shall be medical practitioners." An Amending Act passed in 1885 reduces the number to three, called "official visitors."

Clause 5, referring to the "official visitors," states, "one of whom shall be a medical practitioner." "The president shall be a medical practitioner." "A quorum must include a medical practitioner." "Every hospital and the insane confined therein shall be subject to the control and direction of the visitors." "Any two or more of whom (visitors), *one being a medical practitioner, shall visit* . . . once at least every month . . . and see every patient confined therein and make such enquiries, examinations and inspections as are set forth in the next section of this Act."

Clause 6: "Visitors . . . shall enquire as to care, treatment, and mental and bodily health of the patients . . . as to whether any is under restraint or in seclusion, and why; as to whether and at what times and to what number of patients Divine service is performed, and the apparent effect thereof . . . and shall inspect the order and certificates for the reception of every patient . . ."

The above extracts clearly show that the services of a medical practitioner are a *sine qua non* to the administration of the Act. A considerable amount of clerical work devolves upon the chairman. Such institutions do not come within the category of "charitable." The appointment is in no way comparable with "honoraries" to an ordinary hospital; there are no benefits resulting therefrom, such as the experience gained by holding these latter positions.

In view of the above facts—

1. Is it not reasonable that the State should give the chairman some remuneration for his professional services?

2. Is any practitioner (especially one not in active practice) acting fairly to his professional brethren by holding the appointment as an honorary one, to the exclusion of others?

*** 1. It is certainly unreasonable for the State to expect any medical man to give such services without some remuneration.

2. In view of our answer to question 1, we consider that no medical man should hold such a position as a purely honorary one; and any medical man who continues to perform such duties in a purely honorary capacity is, in our opinion, acting unfairly to his professional brethren.

MEDICAL NOTES.

A Munificent Donation.—Mr. Alfred Beit, the financier, has informed the honorary treasurers of the Institute of Medical Sciences Fund (University of London) that, having read the report of the committee appointed by King Edward's Hospital Fund on the financial relations of the hospitals and medical schools, and the correspondence and article thereon in *The Times*, he has decided to increase the amount of his donation to the institute from £5000 to £25,000. Mr. Beit desires by this gift to commemorate the great kindness of his friend Dr. Jameson, the Premier of Cape Colony, and the services of members of the Faculty of Medicine, during an illness from which he has now recovered.

Sydney Water Supply.—At last monthly meeting of the Water and Sewerage Board, a communication was received from the Lands Department, notifying that the practice of poisoning rabbits on the catchment area had, in response to the board's representations, been discontinued. Other means will be adopted to prevent their increase.

Queen's Jubilee Fund.—The sixteenth annual report of the Queen's Jubilee Fund states that the endowment fund has been increased to the extent of £513, which included a bequest of £500 under the will of the late Sir William Macleay, and now stood at £20,216 14s 2d. The original capital with which the working of the fund was commenced in 1889 was £16,243 12s 10d. At the end of 1897 it had been raised to £19,405 17s 2d, the greater part of which was the result of a special effort made to commemorate the sixtieth year of her late Majesty's reign. Since then the council has made no public appeal for help, as there were so many other charities which depended entirely on annual subscriptions for their income. The total number of women who had been helped by the council during the past 16 years was 3569, and the amount spent on their relief was £13,293 3s 7d. During the year 211 applications for relief were considered and dealt with. Of these, 168 applicants were assisted to the extent of £783 6s 6d, and 43 cases were considered ineligible.

St. John Ambulance Association.—A demonstration in connection with the St. John Ambulance Association was held in the Town Hall, Melbourne, when Janet Lady Clarke, who is an honorary associate of the order, presented the medallions and certificates awarded during the year ended April 30th. The chairman stated that during the past 12 months 261 persons had been instructed at the classes, of whom 123 passed. The number of pupils trained was, however, rather smaller than in previous years. Of the pupils who had attended the full number of examinations, 25 were entitled to receive medallions. Illustrations of the work of the association were given, and were watched with considerable interest. Dr. Springthorpe acted as master of ceremonies, and Dr. J. R. M. Thomson, Dr. J. H. McGee, and Dr. Rosenfield officiated as judges in the competition.

TO LET.—Large Unfurnished Room at No. 28 COLLEGE STREET. Rent £95 per year, including attendance, lighting and use of waiting-room. Backhouse and Goyder, Medical Agents, 90 Pitt-street.

Messrs. Parke, Davis & Co. direct attention to their advertisement on page 12.—[ADVT.]

Hospital Saturday, Sydney.—The twelfth annual collections in aid of the New South Wales Hospital Saturday Fund were taken up on May 6th, and, despite the unfavourable weather, the day's receipts, as counted at the Bank of New South Wales, aggregating £4094 8s 7d, being within £29 14s 4d of the Saturday total of the previous year's collections. Some amounts were already in hand, which makes the present total about £4555. The members of the executive committee anticipate that by the end of the month the grand total tor 1905 will exceed that of last year, which was £4878 8s 4d. The aggregate collecttions for this fund, since its inauguration in 1893, now amount to £48,022. Saturday's collection was made up of 450,788 coins, being a decrease of 19,213 coins as compared with the corresponding day of the previous year.

Old Age Pensions in West Australia.—In giving evidence before the Federal Old Age Pension Commission in Perth, Mr. S. Watson, acting-superintendent of public charities, said the number of persons in Perth who received outdoor relief was 144, and for the country 226, a total of 370. There were 359 inmates in the various homes above the age of 60. He did not think a great many of the inmates of the homes would be likely to leave if pensions were granted. Those who would most likely apply for pensions would be those who were now being assisted by friends, and who had a repugnance to appealing for charity. A good percentage of the inmates of the homes were worn-out or injured miners, and there would be more in future, because there was a great number of old miners on the goldfields.

Sydney Pathological Club.—The first meeting for this year was held at the Biological Laboratory of the Board of Health, Sydney, on Thursday, May 11th. Professor Anderson Stuart was elected president for the year, Professor Welsh was elected honorary secretary, and Dr. Tidswell the third member of the committee. Dr. Sinclair Gillies showed a case of motor aphasia. Dr. Frank Tidswell gave a demonstration on snake venoms, and the curative powers of specific sera.

PERSONAL ITEMS.

THE resignation of Dr. B. M. Sutherland as resident surgeon of the midwifery department of the Women's Hospital, Melbourne, has been accepted with regret.

Dr. Halcomb, of Muswellbrook, has purchased the practice of Dr. Patton, of the same town.

The Fellowship of the Royal Society of Edinburgh has been conferred on Dr. Mackenzie, demonstrator of anatomy at the Melbourne University, and of the Children's Hospital.

Dr. W. J. Russell, of West Maitland, is leaving the district for England. Prior to his departure, Dr. Russell was made the recipient, at the hands of Mr. J. N. Brunker, of a silver-mounted pipe and matchbox and cigar-holder, from the members of Mr. Brunker's family. Testimony was borne to Dr. Russell's medical skill and estimable character, and regret expressed at his departure. Dr. Russell was also presented with an address and gold thermometer case and chain, with safety pin attachment, by the maternity nurses.

Dr. A. A. King, of West Maitland, has acquired the whole of the interest in the practice formerly carried on by Dr. W. J. Russell and himself in that district.

Dr. J. E. Neild, of Melbourne, was on April 14th presented with a bank draft for £155 6s 6d by a number of his friends and old students. The proposal originated in the Faculty of Medicine at the University, and was intended to mark Dr. Neild's retirement from the position of lecturer on forensic medicine, after forty years' service. Dr. Jamieson, Professor Allen, and Sir Thomas Fitzgerald all expressed their appreciation of Dr. Neild's services to the medical profession and the public.

The dental profession of Victoria tendered a complimentary dinner to Dr. J. W. Springthorpe, president of the Dental Board and Dean of the Faculty of Dentistry, on April 8th, at the Grand Hotel, Melbourne. Mr. T. W. F. Hall presided, and referred to Dr. Springthorpe's connection with the board since 1888, and his valued services in connection with the recent affiliation with the University.

Dr. R. T. Michell has disposed of his practice at Blayney, New South Wales, to Dr. H. Cane, late of Manchester, England.

Dr. A. F. J. Mickle, of Christchurch, New Zealand, has left on a visit to England, and anticipates being away for a year. Dr. Shone will take charge of the practice during Dr. Mickle's absence.

Dr. M. U. O'Sullivan has been appointed by the Melbourne University Council as honorary representative of the University at the Fifth International Congress for Gynæcology and Obstetrics, to be held in St. Petersburg in September next.

Dr. Marten, of Adelaide, returned from England by the R.M.S. "India" on May 6th.

Dr. H. E. Lee has disposed of his practice at Gunnedah to Drs. R. W. Crooke and G. McLean. Dr. Lee intends leaving on a trip to England early in July.

Dr. D. M. Paton has disposed of his practice at Kew, Victoria, to Dr. E. A. De Ravin, late of Inglewood.

Dr. George McLean, late of Waverley, has removed to Gunnedah, N.S.W.

Dr. McGavin, late of Makotuku, has returned to New Zealand after 12 months' hospital work in London, and has entered into partnership with Dr. Chapple, of Wellington, N.Z.

Dr. Aubin, of the Thames Hospital, New Zealand, left for San Francisco by the "Ventura," and returns by way of the East.

Dr. T. H. Morgan, formerly of Gympie, Queensland, has returned to the State after three years' residence in England, and has taken up residence at Wickham-terrace, Brisbane.

Dr. W. Blair Aitken, after a holiday extending over 12 months, principally in Scotland, returned to Jamestown, S.A. Dr. Caw, who has been acting as *locum tenens* for Dr. Aitken, left for Narracoorte, S.A.

Dr. J. W. Springthorpe was, at a recent meeting of the State Executive Council, reappointed president of the Dental Board.

Dr. L. Fitzpatrick, who for some time practised at Orange, N.S.W., has left that town and intends residing on his station, "Aberbaldie," near Walcha.

Dr. A. Campbell, late of Young, N.S.W., has succeeded to Dr. Pym's practice at Marrickville, Sydney.

Dr. Donald MacMaster, of North Sydney, left Sydney on April 17th for a trip to America and Great Britain.

Dr. A. E. Mills, of Strathfield, left Sydney last month on a trip to England via Vancouver.

Dr. G. E. Rundle was among the passengers who sailed by the Orient-Pacific liner "Orotava" for London last month.

Dr. Lister, surgeon of the steamer "Nairnshire," which arrived at Adelaide from Liverpool on May 2nd, died of pulmonary consumption on April 13th, and was buried at sea.

We regret to learn that Dr. J. E. Dutton, of the Liverpool School of Tropical Medicine, has succumbed to tick fever while on an expedition to the Congo. He was a young man, who had already greatly distinguished himself in tropical medicine. Educated at University College Hospital, London, Liverpool, and the Victoria University, he graduated with honours in 1897, won a Fellowship in Pathology in 1897-98, and was Walter Meyers Fellow of the Liverpool School of Tropical Science, 1901-02. He was a member of the Malarial Expedition to Nigeria in 1900, and to Gambia in 1901-02, and was the author of the report of the Nigeria Expedition, and of many papers dealing with malaria and kindred subjects.

Dr. J. Burder Backhouse has resigned the position of assistant physician to out-patients at the Alfred Hospital, Melbourne.

Dr. H. C. R. Bell has removed from Wilcannia and succeeded to the practice of Dr. J. H. Cahill, at Coolah. Dr. Neumann, of Walla Walla, has purchased Dr. Bell's practice at Wilcannia.

On Sunday afternoon, May 7th, there was unveiled in St. James's Church, Sydney, a handsome memorial window erected by his wife to the memory of her late husband, Dr. E. Fairfax Ross. The ceremony of the unveiling was performed by the donor, Mrs. E. Fairfax Ross. An address was delivered by the Rev. W. I. Carr-Smith, in which he paid a tribute to the fine qualities of the late Dr. Ross, how highly he was esteemed by his patients, and with what fortitude he bore his last illness. High praise was accorded to the medical profession in general, whose opportunities for good works are greater than those of any other class of the community.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Forbes, Francis Courtenay Sutherland, M.B., M.S., 1889 (Aberd.)
Parry, Lloyd Davenport, L.R.C.S. (Edin.), to be Government Medical Officer and Vaccinator at Picton, *vice* G. Read, resigned.
Woolnough, Robert Edmund, M.B., C.M., to be senior medical officer, Coast Hospital, Sydney, *vice* W. Stevens, resigned.

For Additional Registration.

Browne, Claude Seccombe, Ch.M. (Syd.), 1905.
Jenkins, Edward Johnstone, F.R.C.P. (Lond.), 1904.

VICTORIA.

Bird, Richard Kingston, M.D., to be Acting Officer of Health, Shire of Arapiles.
Brown, Robert Lee, L.R.C.P., to be Acting Officer of Health, Shire of Cranbourne, *vice* John Hugh Mackenzie, L.R.C.S., resigned.
Drake, F., to be Superintendent of the Consumptive Sanatorium at Broadmeadows.
Laurie, Henry, M.D. (Melb.), to be honorary assistant physician at the Alfred Hospital.

WEST AUSTRALIA.

Cameron, R. M. F., to be Officer of Health, at Bulong, *vice* W. C. Grey, resigned.
Chorley, Anthoney, to be Medical Officer of Health at Wagin, *vice* J. R. Palmer, resigned.
Maunsell, Dr., to be Officer of Health at Cossack.
Myles, William Saunders, to be District Medical Officer and Public Vaccinator at Moora.
Triado, Antonio Joseph James, to be District Medical Officer and Public Vaccinator, Lawlers.

QUEENSLAND.

The following appointments for the year have been made at the Brisbane General Hospital:—

Consultants:—Drs. O'Doherty, Marks, Hare.
Visiting Surgeons:—Drs. Thomson, Jackson, Hopkins.
Assistant Surgeons:—Drs. Meek, Slater, T. H. Morgan.
Visiting Physicians:—Drs. Hirschfeld, Carvosso, Webb.
Assistant Physicians:—Drs. Page, Halford.
Visiting Surgeon for Eye, Ear, Nose, and Throat:—Dr. Taylor.
Assist. Visiting Surgeon for Eye, Ear, Nose, and Throat:—Dr. Orr.
Gynæcologist:—Dr. Connolly.
Assistant Gynæcologist:—Dr. Wield.
X-Rays Physician:—Dr. A. H. Marks.
Dentist:—Mr. Eden.
Medical Officers to the S.B. Branch Dispensary:—Vacant.
Medical Officer to the Convalescent Home:—Dr. Davidson.

NEW GUINEA.

Jones, E., to be Government Medical Officer at Samarai.
Simson, C., to be Acting Medical Officer at Port Moresby.

NEW ZEALAND.

The undermentioned persons to be Public Vaccinators for the districts set opposite their names respectively, viz.:—

Collins, J. C., M.B., Ch.B. (Dub.), etc., late Principal Medical Officer of the Auckland Hospital, to be Medical Superintendent of the Northern Wairoa Hospital at Aratapu.
Douglas, A., M.B., Ch.M. (Edin.), to be Port Health Officer at Oamaru, *vice* Dr. Barclay, resigned.
Lindsay, Herbert Stott, M.R.C.S. (Eng)., L.R.C.P. (Lond).), to be a Health Officer for the Port of Whitianga, *vice* Dr. Cairns, resigned.

The undermentioned persons to be Public Vaccinators for the districts set opposite their names respectively, viz.:—

Clark, Alfred, L.R.C.P., L.R.C.S (Edin.), L.F.P.S. (Glas.), Ashburton.
Hall, George Joseph Alphonsus, L.R.C.P., L.R.C.S. (Irel.), Birmingham.
Lindsay, Herbert Stott, M.R.C.S. (Eng.), L.R.C.P., Mercury Bay.
Mountaine, John, L.S.A. (Lond.), Mangawai.
Shand, Walter Moray, M.B., Ch.B. (N.Z.), M.R.C.S. (Eng.), etc., Wellington.

TASMANIA.

Lyons, Alexander, L.R.C.P., to be Medical Officer of Health for the Shire of Dunmunkle, as Acting Officer of Health for the West Riding of the said Shire, during the absence of Henrich Rabl, M.D.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been duly registered as legally qualified Medical Practitioners in their respective States:—

SOUTH AUSTRALIA.

Chancellor, C. H., M.B. (Columbia), 1902.

VICTORIA.

Ambrose, Ethel Mary Murray, M.B., *et* Ch.B. (Adelaide), 1903.
Baker, Charles Reinhold, M.D. (Cooper Med. Coll., California), 1900.
Gibbs, Martin Arnold, L.R.C.P. *et* R.C.S. (Edin.), 1905.
Rainer, William George, L.R.C.P. *et* R.C.S. (Edin.), 1894.
Cook, Alexander, M.B., Ch.B. (Melb.), 1905.
Darby, George Robert, M.B., Ch.B. (Melb.), 1905.
Foxton, Harold Vernon, M.B., Ch.B. (Melb.), 1905.
Griffiths, Ada Isabella Valentine, M.B., Ch.B. (Melb.), 1905.
Jamieson, Douglas Dunbar, M.B., Ch.B. (Melb.), 1905.
Langley, Arthur Wellesley Homan, M.B., Ch.B. (Melb.), 1905.
McClelland, Wiliam Caldwell, M.B., Ch.B. (Melb.) 1905.

Additional Qualifications Registered.

Shanasy, Thomas, M.D. (Brux.), 1904.
Stephens, Henry Douglas, M.S. (Melb.), 1905.
Bush, Hubert Sheppard, M.D. (Melb.), 1905.
Ferguson, Stewart William, M.D. (Melb.), 1905.
Groves, Wesley Rainsford, M.D. (Melb.) 1905.
Harris, James Frederick, M.D. (Melb.), 1905.
Heyward, William Beaumont, M.D. (Melb.), 1905.
Lidwill, Mark Cowley, M.D. (Melb.), 1905.
Major, James Perrins, M.D. (Melb.), 1905.
Sutton, Harvey, M.D. (Melb.), 1905.
Box, Matthew Henry, Ch.B., 1905.
De Garis, Mary Clementina, Ch.B., 1905.
Forsyth, Robert Leslie, Ch.B., 1905.
Fulford, Howard Cecil, Ch.B., 1905.
Harcourt, Clive, Ch.B., 1905.
Legge, Frank Robert, Ch.B., 1905.
Matthews, John Thomas, Ch.B., 1905.
Mendelsohn, David, Ch.G., 1905.
Patterson, Sydney Wentworth, Ch.B., 1905.
Quick, Balcombe, Ch.B., 1905.
Robertson, Andrew Stuart, Ch.B., 1905.
Schütze, Harrie Leslie Hugo, Ch.B., 1905.
Shiels, John Warburton, Ch.B., 1905.
Turnbull, Henry Hume, Ch.B., 1905.
Turner, William Charles Blackley, Ch.B., 1905.
Langmore, Percy Vance, M.B., Ch.B. (*a.e.g.*).

TASMANIA.

Benjafield, Vivian, M.B. (Syd.), 1904.

WEST AUSTRALIA.

Cameron, Robert Miles Fletcher, L.R.C.P. (Lond.), M.R.C.S. (Eng.), 1903.
Green, Frederick William, M.B., B.S. (Melb.) 1903.
Laughran, Henry Gerald, M.B., B.S. (Melb.), 1904.
Rigby, Ernest Horatio, M.B., B.S. (Melb.), 1901.

NEW SOUTH WALES.

Breitner, Franz, State Exam., Vienna, 1895.
Cade, Daniel Duncan, M.B. (Melb.), 1899.
Dowling, Francis Joseph, M.R.C.S. (Eng.), 1855; L.S.A. (Lond.), 1855; M.B. (Lond.), 1856.
Raby, Ralph, M.R.C.S. (Eng.), 1903, L.R.C.P. (Lond.), 1903.
Thompson, Daniel Robert, Mem., L.M., 1861, R.C.S. (Eng.)
Walsh, Gerald, M.B., 1900, B.S., 1901, (Melb.)

For Additional Registration.

D'Arcy, Constance Elizabeth, M.Ch. (Syd.), 1904.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

GIBSON.—April 25th, at her residence, Chiefswood, Brisbane, the wife of John Lockhart Gibson, M.D.—a daughter.

WEBB.—March 23rd, at Footscray, Victoria, the wife of J. Ramsay Webb, F.R.C.S.—a son.

MARRIAGES.

BURT—SAYWELL.—April 26th, at Rockdale, by the Rev. Dr. Roseby, assisted by the Rev. W. F. Turton, David J. S. Burt, M.B., C.M., fourth son of Alexander Burt, of Dunedin, New Zealand, to Nellie, fourth daughter of Mr. and Mrs. Thomas Saywell, Brighton-le-Sands, Sydney.

FOOKS—CAPEL.—April 4th, at St. Mary's Church, New Plymouth, New Zealand, E. E. Fookes, M.B., to Winifred L. Capel, second daughter of the late Captain Capel.

SHAND—HISLOP.—March 23rd, Dr. W. M. Shand, of Wellington, New Zealand, to Miss B. Hislop, of Wellington.

SPROULE—NEELD.—April 4th, at St. Philip's Church, Sydney, by the Ven. Archdeacon Langley, William Sproule, M.D. (Edin.), of Minmi, eldest son of Robert Sproule, of Mittagong, Constance Eliza, second daughter of the late Joseph George Neeld, of Peckham, London, niece and adopted daughter of Frederick Neeld, of Wyalong House, Wyalong.

DEATHS.

OFFICER.—April 30th, at Sale, Victoria, Marion Charlotte (Daisy), beloved wife of A. E. Officer, and daughter of Dr. A. and Mrs. Macdonald; aged 35.

MILLER.—January 22nd, 1905, Mary Cecil, beloved wife of William Francis Miller, M.B., of Maryborough, Victoria, and eldest sister of Dr. J. H. Evans, Hindmarsh, S.A., and of Dr. H. M. Evans, of Willunga, S.A.

WHYTE.—May 3rd, at Melbourne, Angus Campbell Whyte, M.B., late of Logiealmond, Perth, Scotland; aged 28 years.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS:—

Mr. L. Bruck, Sydney; Dr. Murray Gibbs, Sydney; Dr. B. Poulton, Adelaide; Dr. J. F. Lovegrove, Gunning; Dr. Litchfield, Syney; Dr. Mickle, Christchurch, N.Z.; Dr. R. T. Michell, Blayney; Dr. B. B. Ham, Brisbane; Dr. H. E. Lee, Gunnedah; Dr. H. Russell Nolan, Sydney; Dr. A. J. Brady, Sydney; Dr. Savage, Tasmania; Dr. L. Henry, Melbourne; Messrs. Cave & Co., Adelaide; Dr. David Wield, Brisbane; Dr. F. Allwork, Tasmania.

BOOKS RECEIVED.

The Principles and Practice of Asepsis. By A. S. Vallack, M.B., Ch.M. (Syd.), L.M. (Rotunda). London: Baillière, Tindall and Cox. Sydney: L. Bruck. Price, 3s net.

Errors of Refraction and their Treatment: A Clinical Pocket-Book for Practitioners and Students. By Charles Blair, M.D., F.R.C.S. (Eng.). Bristol: John Wright & Co. 1905. 2s 6d net.

The Effects of Tropical Light on White Men. By Major C. E. Woodruff, M.D. London and New York: Rebman Co. 1905. Price, 10s 6d net.

The following volumes received from Messrs. W. B. Saunders, Philadelphia, New York and London. Melbourne: Jas. Little:—

1. Diet in Health and Disease. By Julius Friedenwald, M.D. and John Ruhräh. Octavo: 689 pages. Price, 18s.
2. A Manual of Personal Hygiene: Proper Living upon a Physological Basis. Edited by W. L. Pyle, M.D. Second edition. 12mo.; 441 pages. Price, 6s 6d.
3. Saunders' Medical Hand-Atlases: Atlas and Epitome of General Pathologic Histology. By Dr. Dürck. Edited, with additions by L. Hektorn, M.D. 172 colured plates, 36 text-cuts, 371 pages. Price, 21s.
4. Atlas and Epitome of Operative Ophthalmology. By Dr. O. Haab-Türich. Edited. with additions by G. E. de Schweinitz, M.D. 30 coloured plates, 154 text-cuts, 377 pages. Price, 15s.
5. An Introduction to Pharmacognosy. By Smith Ely Jelliffe, Ph.D., M.D. Octavo; 265 pages; illustrated. Price, 10s 6d.
6. Gallstones and their Surgical Treatment. By B. G. A. Moynihan, M.S. (Lond.), F.R.C.S. (Eng.). Fully illustrated. Price, 17s.
7. Diseases of the Liver, Gall-Bladder and Bile-Ducts. By H. D. Rolleston, M.D. (Cantab). Octavo. 791 pages. Fully illustrated. Price, 25s.
8. A Text-Book of Legal Medicine. By F. W. Draper, M.D. Octavo. 573 pages. Fully illustrated. Price, 18s.

London: Messrs. Baillière, Tindall & Cox. Sydney: L. Bruck:—

1. The Conjunctiva in Health and Disease. By N. Bishop Harman, M.B. (Cantab), F.R.C.S. (Eng.) Demy 8vo.; 276 pages; 43 illustrations. 1905. Price, 10s 6d net.
2. Clinical Lectures on Appendicitis, Radical Cure of Inguinal Hernia and Perforating Gastric Ulcer. By G. R. Turner, F.R.C.S. 133 pages; demy 8vo. Price, 5s net.
3. Surface Anatomy. By T. Gillman Moorehead, M.D. (Dub.), M.R.C.P.I. Crown 8vo.; 150 pages; 23 illustrations; coloured and plain. Price, 4s 6d net.
4. The Principles and Practices of Asepsis. By A. S. Vallack. Price, 2s 6d.
5. Elmentary Microscopy: A Handbook for Beginners. By F. S. Scales, F.R.M.S. Crown 8vo. Price, 3s net.

Poisonous Plants of all Countries, with the Active Chemical Principles which they contain and the Toxic Symptoms they produced by each Group. By A. Bernhard Smith, late Acting House Surgeon to Lord Lister. Bristol: John Wright & Co. 1905. Price, 2s 6d net.

Dental Surgery for Medical Practitioners and Students of Medicine. By A. W. Barrett, M.B. (Lond.), M.R.C.S., L.D.S.E. Fourth edition. Crown 8vo. Price, 3s 6d. London: H K. Lewis.

AUSTRALASIAN MEDICAL GAZETTE.

INTERNAL DERANGEMENT OF THE KNEE-JOINT.

By H. Critchley Hinder, M.B., Ch.M., Hon. Surgeon Royal Prince Alfred Hospital, Sydney.

I USE this comprehensive term as the subject of my paper, though my attention will be directed chiefly towards what is to my mind the most common and the most serious—the partial or, perhaps I had better say, the dislocation of part of the internal semilunar cartilage.

The term dislocation is always associated with the idea of a separation outwards of a part which is involved in the formation of a joint; but I wish to show you that with the internal semilunar cartilage this is not the case when pain is experienced by the patient, but that the displacement is towards the centre of the joint, and that this is the key to the peculiar phenomena sometimes observed in connection with these cases.

I hope you will pardon me if we first take a glance at the peculiar anatomical features of the joint. The strength of the knee-joint seems to lie almost wholly and solely in the strength of the ligamentous structures which both without and within the joint firmly hold the bones in apposition. The capsular ligament, with additional supporting bands derived from adjacent muscle tendons, becomes strengthened in parts, but apparently not sufficiently in a lateral direction, for the internal lateral ligament is certainly that part of the joint which most frequently gives way. The semilunar cartilages help to deepen the articular surface of the tibia, nor can we positively say that they serve any other purpose. They are attached by their convex surfaces to the internal and external lateral ligaments, so that an injury to these ligaments is very likely indeed to involve the cartilages. There is another factor which exerts a certain influence in keeping the adjacent joint surfaces in apposition, a factor which is apt to be forgotten. I refer to the atmospheric pressure. Its action may be easily studied in the hip and shoulder joints. Directly an incision is made into their capsular ligaments a sucking noise is heard, and the articular surfaces fall away considerably. To put it more plainly, then, there is a constant tendency for the capsular ligament or anything attached to it to be drawn inwards towards the centre of the joint

I have operated upon 28 cases of internal derangement of the knee-joint during the past few years, every time with an aseptic result, and the conditions discovered have been as follows:—I have only once found the external semilunar cartilage involved. On one occasion the mucous ligament which stretches from the pad of fat behind the lower end of the ligamentum patellæ to the intercondyloid notch was torn away, and hung loosely so as to become caught and give rise to slight attacks of synovitis. Once the inner end of the ligament for about half an inch projected into the joint cavity. At times the cartilage was found split longitudinally, and very frequently it was torn from its base so that it projected inwards towards the centre of the joint.

I have never yet found the cartilage projecting out from the joint. It might be possible for a cartilage to be so situated when the patient is standing erect; but I certainly think that the tendency of the cartilage is towards the middle of the joint.

Let us now proceed to inquire into the clinical aspect. The internal semilunar cartilage is almost always involved, because there is a much greater liability for force to be applied to the outside of the extended limb than to the inside. Football is responsible for a very large percentage of such injuries, either owing to the sudden strain placed on the extended limb when the player makes a quick dodging movement, or to the heavy falls of other players across the limbs of the man who is already down. The internal lateral ligament becomes torn across, and at the same time the semilunar cartilage is likewise torn; but inasmuch as one never opens up a recent case, it is hard to say to what extent it is damaged on the receipt of the injury, but I should think it very probable that a certain amount of union takes place during the enforced rest which the joint immediately experiences.

If the patient were to keep absolutely at rest after the injury the union of the parts would be greatly assisted, but the large amount of effusion which takes place into the joint in very severe cases so distends the joint that the torn edges of the rent are kept apart. It is useless to draw off this fluid. I did so on two occasions and signally failed to benefit the part in the least degree, as it re-formed in a very short time. Consequently repair takes place with a lengthened lateral ligament and a general slackness about the joint. It is almost always the anterior part of the internal lateral ligament which is at fault.

In a knee-joint so crippled, after the fluid has been absorbed and the whole part has returned to its normal size a relapse may take place. The relapse may be severe or mild. Let us take an example of the severe type first. The patient is walking along leisurely: he touches the inner side of his toe against a stone or some such obstacle; immediately he feels something catch in his joint, there is a sharp crack, a moment of intense pain, and he is overcome with faintness. He stands still quite unable to walk on the limb and has to be carried home. The pain is now felt all round the joint and particularly along the tendinous structures at the back and outer side. In a very short time a fluid effusion appears, and resolution may take place in a few days or it may be weeks before his joint feels as it did before the injury.

In milder cases the same sudden snap is felt and perhaps heard, but beyond slight pain and a little discomfort and stiffness for a day or two the patient is none the worse for it.

This is what happens in such cases. The internal lateral ligament is lengthened, but while the limb is actively employed muscular action tends to keep the articular surfaces approximated so that the patient is able to take some exercise provided that he has come to understand the mechanism of his joint, but if he is walking along loosely somewhat tired, or if he catches the inside of his foot against any object so as to throw it outwards, then such a turning-out of the toe separates the articular ends of the bones forming the knee-joint, the capsular ligament is lax, and so is the semilunar cartilage which has become partly detached from it. Now the atmospheric force which tends to induce the cartilage to retreat towards the centre of the joint comes into play, and the cartilage is drawn in between the bones. Directly this happens there is a certain amount of pain experienced and a reflex spasm of the muscles brings the bones together with a snap, and the cartilage is popped out again. Sometimes the snap is not felt until the foot is placed on the ground. I have known precisely the same history given when the inner extremity of the internal semilunar cartilage was torn loose, but there must be a sufficient laxity of the joint to allow the cartilage to become so caught. The puzzling part of the whole affair is why is the pain so little in some cases and why so severe in others? I can only explain it by assuming that the synovial membrane and the cartilage are so badly damaged that sensation is lost or that the separation of the bones is slight and that the consequent nipping is slight in degree. Inasmuch as the pain is severely felt on the opposite side of the joint and at the back as well, it is very likely indeed that a separating wrench is given to the whole joint much the same as if a wedge had been thrust in between the articular surfaces.'

I can assure you that this account of mine is not fanciful because I have experienced the fact myself. I have had many attacks of acute synovitis in consequence of this trouble, and I have been a source of interest to my friends and to myself, and my knee has submitted to an infinite variety of treatments.

In the acute stage nothing but absolute recumbent rest is of any value. There must be no half measures, but so long as the joint has fluid within it, it should be rested in the position of greatest ease, that is to say, with the knee slightly flexed. The limb may be placed in a MacIntyre splint or rested on the bed, supported in a comfortable position with pillows and steadied with sandbags. An ice bag or bag with cold water frequently renewed gives great comfort, but evaporating lotions are not worth bothering about except as a placebo. No attempt should be made to use or even flex the joint until three or four days after every trace of fluid has disappeared. Never mind how the patient feels about it, if fluid is present the limb should not be used. At first he may get about with two crutches a little at a time, and later with two sticks, and so on. One need have practically no fear of the joint remaining stiff unless the patient is old or has rheumatic tendencies, so that too early effort to obtain free movement is decidedly harmful. Should a fresh effusion of fluid appear at any time, insist on absolute rest at once. If this line of treatment is not adopted and the unfortunate patient persuades his medical attendant to allow him to hobble in to office, the knee will take a very much longer time to recover, and the family physician will have to take the credit of not having understood the case. After the patient has fully recovered or has suffered from one or two relapses, the question of operation will probably crop up.

I should advise no one to lightly undertake the opening up of the knee-joint. Many men still look upon the opening of the peritoneal cavity with a certain amount of awe, but the danger attending this is not to be compared with that of opening up the knee-joint, for its resisting power is extremely small. Recognising this, I always, if possible, make a point of completing the operation without allowing my fingers to enter the joint. Curved scissors and one or two sharp hooks and forceps are all that one requires. I prefer a semilunar incision whose convexity passes an inch below the head of the tibia. The ligamentous structures are stripped up so as to leave the bone bare of periosteum. The joint cavity is easily entered, and my impression is that one gets a firmer union with the rough denuded bone than one could possibly get between two ligamentous structures. This incision certainly allows a very free examination of the joint. The parts are adjusted and the wound is closed with buried catgut and superficial horsehair sutures. No drain is employed, and plenty of cotton-wool with elastic pressure of a bandage completes the dressing. On one occasion I was somewhat alarmed by seeing a temperature of 102° and 103° for four days after the operation, but the knee did not seem to be very swollen; the patient looked well, and I felt sure that there was no fault in the technique, so I let it alone, and the temperature fell, and there was no further trouble. I think that I made a mistake in this case by operating too soon after an acute attack.

Suppose either you, yourself, or the patient prefers some palliative treatment, what is he to do?

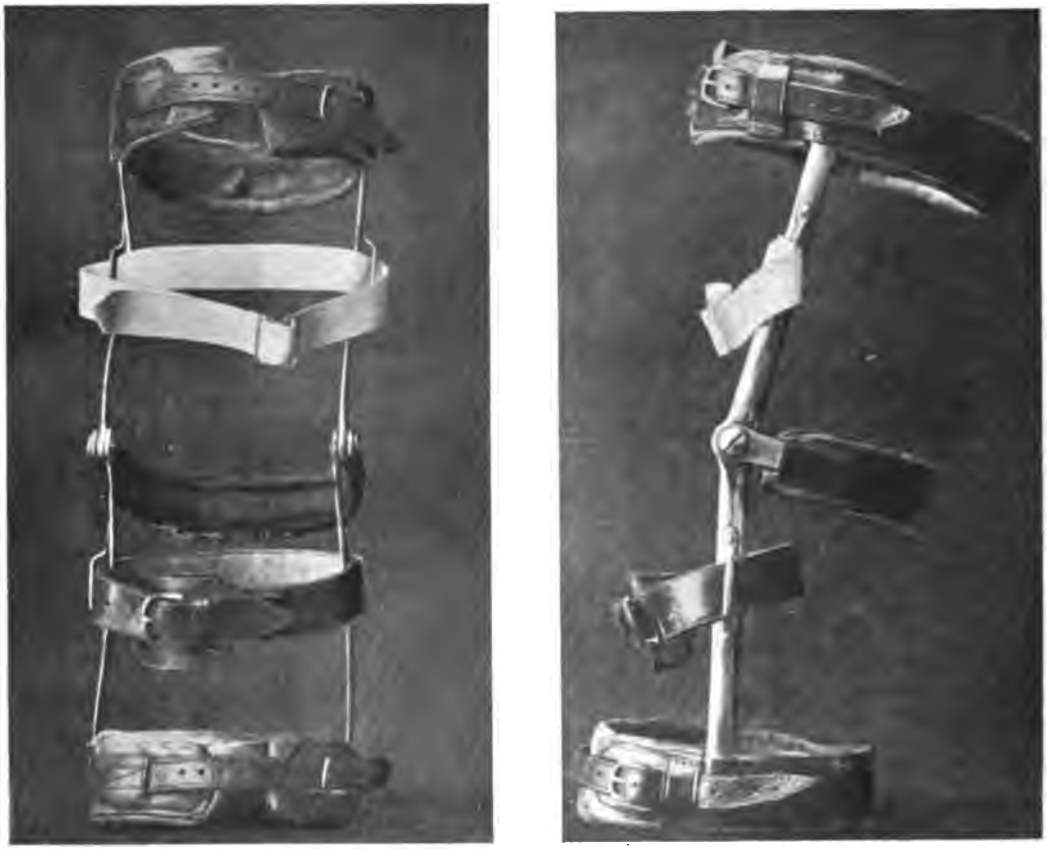
In the first place caution him, if it is the internal semilunar cartilage at fault, to make a practice of keeping his toe turned inwards when walking. Nothing can happen if he is sitting with his leg half flexed, but with the limb fully extended keep the foot turned in so as to jam the inner margins.

Elastic stockings impart a sense of support, but they are absolutely useless. Most of the splints devised seem to attempt to press some imaginary cartilage in, but if the cartilage projected outside the joint I cannot see what harm it would do. Patients do very well after the cartilage has been removed, and do not seem to be in any way the worse for its removal. One must never forget that the whole matter depends on the lengthening of the lateral ligament and consequent separation of the articular ends. What we need, then, is an instrument which will act as a hinged splint on the inner side of the joint, which, while permitting a free movement backwards and forwards, preserves an absolute rigidity laterally. Its action is not required when the leg is flexed, but its greatest support should be felt when the leg is fully extended—that is to say, when there is the best opportunity for the cartilage to become engaged, and when the limb is the least able to resist a lateral movement and separation of the articular surfaces.

I have had splints made after many models, but none of them seem to give the support that is needed. The splint I now use and have used for about twelve years is the result of a considerable number of trials. There were many trials before we were able to arrive at exactly what was wanted. However, I cannot improve on this, and it is so satisfactory that I have been without any severe attack for years, and I am well able to play tennis, for instance, without coming to any harm. No splint would enable a man whose knee had been badly damaged to play football or to wrestle.

The splint must be made to measure. It consists of two lateral bars, the inner one being moulded to the inner side of the knee-joint. These lateral bars are broken and hinged in the centre with a broad flat-bearing surface. They are connected rigidly at each end by semicircular flat bars firmly riveted. In the centre is another flat bar with free play, hinged and attached at the middle joint on each side, so that the one rivet holds with free play three bars on each side at the centre. The two bars at each extremity are encased in leather and terminate in a strap, which is fastened moderately loosely. There is another strap just below the joint encircling the limb. The iron side-piece stands out on the outer side to such an extent that this strap may be tightened without fear of interfering seriously with the circulation. Above the knee-joint I find that it is absolutely necessary to attach a rubber band, which is just taut enough to assist the lower strap in keeping the splint in place under the varying movements of the limb.

The natural question you would doubtless like to ask is, Why I did not submit to operation myself? Well, asepticism was not then what it is now, and, again, the precise treatment was not by any means clear ; and later, when my football days were over I found that I could get along so well with my splint that I hardly cared to absent myself from active work for at least five weeks, for although a patient is able to begin to get about in three weeks, he is not fit for much for some two weeks afterwards.



ILLUSTRATIONS OF DR. HINDER'S KNEE SPLINT.

The idiopathic cases are those in which small tags or the hypertrophied fringes of the synovial membrane have long pedicles, or have become completely detached. These are apt to become caught and jammed, but they do not so often give rise to severe attacks of synovitis. They may be recovered by pinching them and fixing them against the skin. On cutting down they will pop out, but although this is at times as simple as it reads, a man need be very careful in case the nodule slips away how he enters the joint with his finger for exploratory purposes.

These bodies, as well as some types of detached cartilage, occasionally bring about a condition known as locking the joint. The locking takes place when the knee is partly flexed and the subsequent extension jams the body so that the joint is almost and perhaps quite immovable. These are the cases where the bonesetter scores. The knee is fully flexed so as to release the body, and then sudden extension closes the joint free of the obstruction. However, it is absolute madness to attempt this in acute cases or where fluid is present. The same condition occurs in a less severe form, and the patient is able to manœuvre the joint himself so that he will obtain relief.

I certainly would advise any young person who is in the middle of active sporting life to submit to operation. I should also give the same advice to those who were engaged or likely to be engaged in occupations which demanded the use of a pair of sound limbs able to bear all sorts of strain, and also those who would be irritated by the constant wearing of a splint. Early submission to treatment in order to get early absorption of fluid and early union are the measures which are most likely to bring about union of the ruptured ends of the ligament without lengthening. In conclusion, I should like to emphasise this fact, and I am sure that any surgeon of experience will agree with me, that opening the knee-joint is a very serious matter indeed. If suppuration takes place we can hardly dare be let off with less than a stiff joint, and I have known men to lose their lives through sepsis following the operation. Unless a man is sure of every link in his aseptic chain he had better leave the knee alone.

(Read before the New South Wales Branch of the British Medical Association.)

TETANUS IN CHILDREN.

Notes by H. Swift, M.D. (Cantab.), Adelaide.

Case I.—Hilda O'B., *æt.* 6½, was admitted into the Children's Hospital on April 3rd, 1904. She was apparently quite well up to April 2nd, when she was found to be unable to walk, her back becoming arched and her whole body stiff. On the day of admission she had two "fits," during which she became quite stiff, screwed her features up, and showed the whites of her eyes. She was able to swallow her food. A month ago a heavy stone fell on her right big toe. A week after she caught the nail against a step, which caused it to bleed profusely. She has walked lame since. She has never had a similar attack.

She was a fairly healthy-looking, well-nourished girl; intellect quite clear. She lies in bed with her head a little thrown back, and the muscles of her body and legs a little rigid. Temperature on admission was 99°; pulse, 88; respiration, 36. Bowels had been opened during morning. Tongue was a little coated. She was ordered gr. iii of chloral hydrat. and gr. v of pot. bromid. every two hours. On April 4th I removed the big toe-nail, thoroughly cleansed wound, and applied a dry antiseptic dressing. There was more retraction of head, opisthotonos more marked. The chloral was increased to gr. v. She remained about the same until May 6th, when she appeared to get an exacerbation of her symptoms, with a rise of temperature to 101°. On the 7th temperature went up to 104·2° at 9 a.m.; at 11 a.m. it was 105·8°. She was sponged and put in a wet pack. At 2 p.m. temperature was 102·6°. Chloral increased to gr. x every three hours. At 6 p.m. temperature 99·4°, and child seemed much quieter and took her nourishment well. Bowels very constipated. On the 9th she was not so well; spasms more severe and lasted longer; opisthotonos more intense; inability to take much nourishment. Temperature ran up to 104·8°. She rapidly got weaker, and died on the 10th. We were unable to obtain any antitetanic serum until it was too late.

For the first three days the child appeared to be doing fairly well, but had a bad night, and from that on rapidly got worse. It looks as though she received a fresh supply of toxin into her circulation, which might perhaps have been combated had we been able to inject some serum. It might appear also that the wound was not treated with sufficient energy; but when the nail was removed the underlying parts were apparently granulating, quite healthy; and as there was no redness nor swelling, I thought it best to allow it to heal with antiseptic precautions without removing any more tissue. The temperature rose rapidly concurrently with the other unfavourable symptoms.

Case II.—Hilda G., *æt.* 6, was admitted into the Children's Hospital on January 17th, 1905. She had had a discharging left ear for about three years, but was otherwise quite well until three days before admission, when the child fell down, became rigid, and could not rise again without aid. On being picked up she remained stiff for a few moments and then went limp. There were no twitchings, and the back was not arched. The child was quite conscious; did not pass urine nor bite her tongue. The mother noticed that her tongue looked ulcerated that day. No sore throat. There was no history of any injury. The child has fallen down and exhibited the same symptoms upon six occasions since onset. She had not complained of pain, except a sore tongue.

On Examination.—She had a large hæmatoma on right side of head; slight discharge from left ear. There had been a boil on left side of scalp, which was practically healed. There was a small scratch on middle toe of left foot. No other marks. Child was apathetic, and when lying in mother's arms appeared to be quite stiff. If she was moved or touched she at once became quite rigid, and was in a kind of cataleptic condition ; in whatever position her limbs were placed they would remain so for several seconds, resembling closely the limbs of an articulated doll. She was quite conscious. Complained of occasional abdominal pain. Swallowed fairly well, but jaws seemed stiff. Reflexes exaggerated. Temperature, 99° ; pulse, 100 ; respiration, 28. Swabs were taken from ear, throat, and nose.

On the 18th she appeared not quite so well ; had had several spasms during the night. Abdominal muscles rigid ; some opisthotonos. Risus sardonicus. Swabs on cultivation show no diphtheria bacilli. Was given gr. iv each of chloral hydrate and pot. bromid. every four hours. On the 19th a little increase of symptoms was noted, so she was given 10 c.c. of Pasteur's antitetanic serum injected subcutaneously into the back.

January 20th.—Had a fairly good night. Appears to be well under the influence of the chloral. The rigidity is not so marked. 10 c.c. of serum given again in the morning. In the evening she seemed to be still further improved, and wished to sit up. Temperature normal. Taking food well.

January 21st.—Had one or two spasms.

January 22nd.—About the same. Two slight spasms.

January 23rd.—No spasms during night, but bit her tongue twice on waking up. Ten c.c. of serum injected.

After this she rapidly improved, and was discharged on February 5th quite well.

Having had these two cases and another a few months back under my care in the Children's Hospital, I thought it would be a good opportunity to publish with these the statistics of all the cases of tetanus admitted into the wards during the past 15 years. With the consent of my colleagues on the staff, Dr. Cooper, the Registrar, very kindly went through the case-books for me. We find that since 1890 there have been 16 cases of tetanus treated in the hospital. Of these, 11 recovered and 5 died—*i.e.*, there was a mortality of 31·25 per cent. Compared with the figures published some years ago this is a very satistactory return. In 1880 Bristowe writes : "The prognosis of tetanus is very gloomy ; almost all traumatic cases and the great majority of idiopathic cases die." According to Mr. Poland, taking all forms together, the mortality is at the rate of 88 per cent. Of course the death rate is nothing like as high as this in these days of Listerism, but still, as far as I can gather, the mortality for all cases is about 40 per cent.

The "incubation period" averaged about 11 days, and, as a rule, the shorter the period the more severe was the case, although in my first case the injury to the toe occurred one month prior to the initial symptoms, but it is a very doubtful point when the bacillus entered the wound. As long as there is an open wound which is not granulating healthily the bacillus might enter at any time, so we cannot pay much attention to the incubation period in the majority of instances. The shortest period was five days after a splinter penetrated a toe. The majority of the cases occurred in the summer, seven of them during January. The muscles of the abdomen, back, and jaw were affected in nearly all. The temperature charts bear out the dictum of Macnamara, viz., that a rise of temperature above 101° is significant of impending danger, and if it reaches 103° the case is one to cause the greatest anxiety.

Constipation was a very common symptom. The fatal cases ran their course pretty rapidly —the longest one was eight days in hospital ; the average was 4·25 days. The cases that recovered remained in the hospital on an average 38 days.

With regard to treatment, all except one case were treated with chloral hydrate. Three only were injected with antitetanic serum ; two recovered. Other drugs tried without any apparent benefit were morphia, chloroform, and nitrite of amyl. The wounds were vigorously treated when they appeared in any way angry or inflamed.

I was under the impression that more than three cases had been treated with serum, but evidently it was a mistaken one. I am sorry, for we cannot arrive at any definite conclusion from so small a number ; but I thought that in my second case reported the administration of the serum was followed by a general improvement in the symptoms, and that she appeared to relapse a little during the two days that none was injected, and again improved after the third dose.

In Sims Woodhead's article in Allbutt's "System of Medicine" there is a comparison of the results obtained by the antitoxic serum treatment in tetanus and by the similar method of treatment in diphtheria, and attributes the splendid results obtained in the latter to the early diagnosis of the disease and the use of the serum to antagonise the poison before it has had time to injure the nerves and muscles. In tetanus, on the other hand, the local wound is not looked upon as a manufactory of the tetanus poison, and consequently nothing is done until the poison has had time to exert its evil influences on the nervous system, and by the time we find out that the patient is suffering from tetanus the disease is so far advanced that any chance of treating it successfully by means of antitoxic serum is reduced to a minimum.

If we agreed with this we should not trouble to try and get some serum to inject; but since this was written numerous cases have been published in which this treatment has been adopted with beneficial results. In one case of a woman, *æt.* 40, rapid onset of symptoms 36 hours after injury there were nine injections of 10 c.c. serum. The first was given on tenth day. There was marked relief after each injection. The patient continually begged to have some more. Patient recovered.

In another case, published in the *Lancet*, three injections were given—first, 10 c.c.; second, 100 c.c.; and third, 90 c.c. Eight days after second injection there was a uniform erythema, with minute white papules. Patient recovered.

Messrs. Wallace and Sargent report in the *Lancet*, 1904, four cases treated by the injection of 10 c.c. doses into the spinal canal, following the advice of Professor von Leyden. Three of these cases recovered.

The exact value of the treatment is still *sub judice*, but that the serum does good in certain cases, even though not injected until some days after the initial symptoms have been declared, is, I think, undoubted. It probably acts by neutralising the toxin which is continually being formed at the seat of the wound; so that we should not hesitate to use the serum as soon as ever we can, and continue to push it as long as the spasms and rigidity continue. Especially should this line of treatment be adopted if the wound looks at all unhealthy. The theory that the toxin is continually being formed at the seat of the wound is borne out by the statistics of the "History of the War of the Rebellion," in which it is related that in 29 cases after incipient tetanic symptoms, amputation was resorted to, with the result that 10 recovered.

The earlier the symptoms develop after the injury, the more severe as a rule is the case, due probably to the rapid absorption of a large quantity of toxin. The more reason then for the administration of large and frequent doses of the antitoxin.

Kropicwicz (Vienna) has reported statistics of 16 cases treated with the subcutaneous injection of brain emulsion. Out of these, 13 recovered and 3 died. The brain substance used was prepared by making an emulsion of rabbits' brains. The treatment is based upon the tendency of the toxin of tetanus to become incorporated in the nerve structures and thereby fixed.

The author believes that the statistics would have been even more favourable if the injections had been used in the beginning of the disease. An abscess is generally formed at the sight of puncture, but heals rapidly after incision.

This is a very good result; but it is very difficult to understand the *rationale* of the treatment. Is the brain emulsion absorbed? Then why should an abscess be formed? If it is not absorbed, why should it attract the toxin? However, there is no lack of material in this country, so that the objection on the score of staleness which is frequently urged against the antitetanic serum would not hold good, and any untoward results are of a trifling nature, so that it is worth a trial.

(Read before the South Australian Branch of the British Medical Association.)

TWO CASES OF TETANUS.

By W. T. Hayward, M.R.C.S. (Eng.), etc., Adelaide.

ROY E., *æt.* 12, schoolboy, was admitted into the Adelaide Hospital on October 8th, 1903, complaining of inability to open his mouth and stiffness in the back of his neck. During the previous week he had worked a good deal in the garden, but he could not remember having received any injury. He had suffered from toothache during this time. On October 4th he complained of some stiffness in his jaws, which his mother attributed to his dental trouble. On the 6th he had pain in his neck and slightly in his shoulders; the stiffness in the jaw had also increased.

On admission patient could only separate his teeth about a quarter of an inch, and he complained of stiffness in the back of the neck, which was slightly painful on pressure. Nothing abnormal could be detected about the trunk or limbs. Temperature, 100° pulse, 88, regular, fair volume. A few old scratches were found on the hands, but no definite sign of any injury. Heart and lungs normal. Very restless. Can take nourishment, but slowly.

October 9th.—Temperature, to 100°. Had fairly good night. Trismus is more marked. Risus sardonicus present. Muscles of back of neck stiff and tender to pressure. Abdominal muscles stand out and are tender. Back is somewhat arched. Reflexes in legs normal. More restless. Complains of pain in abdominal muscles. Patient isolated. Ten c.c. of anti-tetanic serum injected ; antipyrin gr. 40 administered.

October 10th.—No sleep. Exceedingly restless ; tosses about in bed and tries to get up. Complains greatly of pains in his legs and calls out. Lies with his legs flexed. Muscles hard and tender. Reflexes exaggerated. Abdominal muscles like a chessboard. Injection of serum ; potass. bromid. chloral administered. Towards evening had several severe spasms. Temperature rose to 101·2°. Morphia gr. ⅙ hypodermically. Taking nourishment fairly.

October 11th.—Had severe spasms during the night ; used to get doubled up and go black in the face. Is quieter this morning. Can separate his teeth one inch. Injection of serum ; chloral and potass. brom. gr. every two hours. Temperature rose to 103°.

October 12th.—Seems better to-day. No spasms. Serum ; morph. gr. ⅙ at night.

October 13th.—Worse. Three severe spasms, in which he went blue, lasting two to three minutes. Temperature, 101° to 102°. Bowels confined. Pulv. Glycyrrhizæ Co ; serum ; morphia gr. ⅙.

October 14th.—Worse. Pulse, 120, weak ; respiration, 44 ; temperature, 101° to 102°. Bowels still confined. Two injections of serum ; hyd. subchlor. gr. iii.

October 15th.—Better. Serum ; hyd. subchlor. gr. iii. Bowels moved twice.

October 16th.—Improving. No further spasms. Has erythematous rash on abdomen. Serum. Temperature, 99° to 100°.

October 17th.—Rash on abdomen has cleared up. A patch on inner aspect of each leg where serum was injected, also on left arm. Serum.

October 18th.—Very much better. Rash on left arm very distinct, with clear outline ; fading elsewhere. Serum.

October 19th.—Heavy rash on right arm, swollen ; that on left fading. Serum discontinued. Has been taking the chloral and bromide mixture regularly, frequency gradually being reduced. October 20th.—Doing well. Can separate his teeth about an inch. Muscles in neck and abdomen still very tense, but not so tender to pressure, nor does pressure start spasms, as was formerly the case. Light does not affect him now. He has been able to use his hands throughout his illness, but his toes have been very stiff. Sleeps well. Temperature still remains from 99° to 100°.

October 23rd.—Facial expression better. Back less arched. Can open his mouth almost to full extent. Abdominal muscles still stand out, and he is still very sensitive to pressure. Erythematous rash present all over body. Temperature rose in evening to 102°. Still taking chloral mixture three times a day.

October 28th.—Much better. Muscles still somewhat rigid, but less so. Has lost most of his hypersensitiveness. No sign of rash. Can now chew his food. Very hungry. Chloral discontinued. Moved back to ward. Temperature normal.

From this time continued to improve, the muscles becoming more relaxed, but the abdominal ones remained more or less tense for another fortnight. He was discharged cured on November 19th.

F.M., *æt.* 12, admitted to Adelaide Hospital on February 6th, 1904, complaining of stiffness of his jaw and pain in back of his neck. Seven days prior to admission he wounded his left foot with a splinter of wood, his leg became stiff, and the wound suppurated. On the evening before admission he noticed that his jaw was a little stiff, and that he could not open his mouth widely. Next morning the back of his neck was stiff, he could not open his mouth, and he could only take liquid food. The pain and stiffness in the neck came on in paroxysms.

On Admission.—Patient lies with his head drawn a little backwards. Can only just separate his teeth about a quarter of an inch. Can answer questions rationally ; speaks plainly. Temperature, 99° ; pulse, 104 ; respiration, 26 ; heart and lungs normal. The wound in his foot was laid open freely and swabbed with peroxide of hydrogen ; 10 c.c. of antitetanic serum was injected into axilla, and 15 grains of chloral hyd. was ordered every six hours. The symptoms increased in severity, the paroxysms coming on four times between 8 and 10 p.m. ; the temperature went down to 97°. Morphia gr. ⅛ was injected at 1.30 and 6.30 a.m., but the paroxysms increased in intensity, coming on at last every few minutes. Chloral was injected per rectum every hour without effect, and the patient died on February 7th at 4.30 p.m. The temperature was 99° at noon, 98 at 4 p.m., and 105° just prior to his death, rising to 106° half an hour after.

Remarks.—Causation.—The first case may be classed under the so-called idiopathic variety; but though no definite injury was noted I think we may presume that he became inoculated through one of the scratches he received while working in the garden, possibly in connection with manure. In the second case we have a definite history of injury and a suppurating wound. In the one case a large dose of the virus was absorbed owing to the penetrating nature of the wound; in the other, the point of inoculation being superficial, a much smaller quantity was absorbed. The period of incubation in both cases seems to have been about five to six days, but the symptoms of the one developed with intense rapidity and in the other more slowly. In both cases the onset was classical. In both cases, also, the temperature at first was low, in the fatal one remaining so till immediately prior to death, and after death registering 106°; in the other one it remained practically from 100°-101° throughout the illness, only once reaching 103°; but it continued elevated for some time after the serious symptoms had passed.

Treatment.—In the fatal case death occurred so quickly that no treatment would probably have been of any avail. I am doubtful whether to ascribe the recovery of the other case to the use of antitetanic serum or to the chloral hydrate, or to the combination of the two. The serum was administered 11 times, 10 c.c. daily, on one occasion twice in the same day; the chloral was pushed to the extent of gr. 10 every two hours for many days and then gradually reduced. It would be more satisfactory to rely on one or the other remedy, but in the face of such agony and such danger it is difficult to observe a strictly scientific aspect. I cannot help noting that on each occasion after the administration of morphia that the condition of the patient was worse on the next day. May it be that the temporary relief is gained at the expense of checking elimination of the poison, and might not better results be obtained by adopting a more eliminating method of treatment? Whether the action of the calomel had such an effect it is impossible to say, but the patient certainly improved after its administration.

The erythematous rash was a marked feature in my first case, but it was doubtless the result of the treatment. Here, again, it is doubtful as to whether it was due to the serum or to the chloral.

(Read before the South Australian Branch of the British Medical Association.)

A CASE OF ACCIDENTAL HANGING.

By **C. MacLaurin, M.B., C.M. (Edin.), Hon. Surgeon, the Royal Hospital for Women; Hon. Assistant Surgeon, the Royal Prince Alfred Hospital, Sydney.**

ACCIDENTAL hanging is not common, and is so fatal a casualty when it occurs that a case of recovery may be interesting.

A boy of 11, who had been playing in a backyard on Sunday, April 30th last, was found by his mother hanging to the rail of a flight of steps, suspended by a strap round his neck. She did not know how long he had been there, but his face was black, his tongue protruded, and his eyes started. She cut him down and sent for me. I arrived some three minutes later, and found the boy lying on the asphalt, apparently dead. He had already been dosed with whisky, which he had not swallowed. His face was pallid and bluish, the reflexes abolished, breathing had stopped, the pulse was imperceptible to a hasty examination, the pupils pin-point, the muscles flaccid; there were hæmorrhagic petechiæ on both eyelids, and the conjunctiva over the right sclerotic was stained with considerable hæmorrhage.

After several minutes of artificial respiration and friction to the limbs, at the end of which pure oxygen was given, he began to make inspiratory efforts, which soon passed into Cheyne-Stokes' respiration. The pulse was then about 160 and very small. In ten minutes the arms and neck became rigid, as though resisting artificial respiration.

The Cheyne-Stokes' respiration was well marked. An interval of 30 seconds would be followed by shallow breathing, which became deep and stertorous, and finally convulsive, with opisthotonos and violent tonic contractions of all the muscles; the pupils were then widely dilated, the face engorged, and spasm of the larynx occurred, causing stridor. On the down-grade the pupils contracted, the face became pale, the muscles relaxed, and the breathing gradually ceased altogether. During both up and down grades of the curve the conjunctival reflex was sometimes present, but was abolished at the summit and base. The plantar and patellar reflexes did not appear for several hours. Swallowing and coughing occurred two hours after the injury. At the end of three hours respiration was regular, though shallow, and the artificial respiration, which had been kept up in the intervals of the Cheyne-Stokes, was discontinued. Calomel was given, two grains every two hours for three doses, and the bowels then acted freely with an enema. He vomited once, twelve hours after the injury.

Consciousness was restored in 18 hours. The patient was torpid, spoke with difficulty, had no recollection of what had happened, and complained of a sore throat. In 24 hours he was restless, and tried to get out of bed. He then became delirious for another 24 hours, and after becoming quiet was full of delusions, thinking he was a Russian soldier and that others were trying to kill him. Sleep did not occur till 80 grains of potassium bromide had been given ; it lasted ten hours, and he woke up weak but mentally well. There was little headache all along.

Death by hanging occurs in four ways—(*a*) asphyxia, (*b*) cerebral engorgement, (*c*) cerebral anæmia, (*d*) fracture of the cervical vertebræ. The first two are of course allied, though not identical.

Asphyxia is probably not, as popularly thought, the common cause of death. Whether it was present in this case cannot be certainly said ; no doubt there was a considerable degree, but it was not the chief factor. Unconsciousness would occur so slowly that the victim could release himself.

Cerebral engorgement is due to obstruction of the jugular veins while the arteries are free. Minute venules may rupture in the meninges and brain substance, as they ruptured in the conjunctiva ; and no doubt this condition in my case was the principal cause of the Cheyne-Stokes' respiration, the convulsions, the delirium, and the delusions.

Cerebral anæmia is probably a common cause of death by suicidal hanging ; the two carotids are compressed against the vertebræ, and instant unconsciousness occurs, followed by rapid death with little or no struggling. The vertebral arteries are either compressed by the crooking of the neck, which seems to be necessary for this form of death, or do not give enough blood supply to enable the brain to struggle even unconsciously. If the vertebrals are patent, cerebral engorgement seems to occur, with violent convulsive struggles, as in the familiar scenes on Tyburn.

A case reported in a recent *Edinburgh Medical Journal* is instructive. A German servant girl tied a rope around her neck and to a bedpost and dropped on her knees. She was found dead a few minutes later, with face calm and pallid, and hands clasped as if in prayer. The brain was anæmic. There had clearly been no attempt at struggling. Unconsciousness had been immediate, and death almost as rapid.

Fracture or dislocation of the cervical vertebræ, with destruction of the medulla, is the aim in modern judicial hanging, and is effected by the drop and a large hard knot adjusted under one ear in such a way as to strike a violent blow on the mastoid process and drive the head over to one side, using the opposite side of the noose as a sort of fulcrum whereon to break the neck. It is ingenious, but not always entirely successful. Sometimes the drop is too great and the man may be decapitated, or the force of the blow may be insufficient, causing death probably by cerebral engorgement. One hastens to add that in all cases of modern judicial hanging unconsciousness must occur instantly.

Accidental hanging is generally found among small boys playing at soldiers or similar games. The epidemic of "Boers and Britons" led to one case in Sydney. They hold court-martials, and having sentenced a prisoner to death tie a rope round his neck, and fix it to a tree or fence. If the prisoner's foot slips the game may unhappily become deadly earnest, owing to compression of the carotids ; for it must be remembered that unconsciousness then comes instantly. Sometimes the boy's comrades may have sufficient presence of mind to release him, but occasionally they may be terrified by the horrible appearance of the victim and run away, in which case they generally tell nobody, leaving him to be discovered. This happened in the case just mentioned, but whether any such proceedings led up to my own case is more than I know. At any rate it seems to me that a knowledge of the danger in such games ought to be forcibly brought home to little boys caught playing them.

(Read before the New South Wales Branch of the British Medical Association.)

DENTAL DECAY AND HYGIENE.

By Mr. W. R. Parker, L.D.S. (Eng.), Member Queensland Odontological Society.

In reading this paper to you, I do so not posing as an authority, nor do I believe there is much new information contained in it. The subject has always interested me, and always have I been keen on reading the latest information bearing upon it. One thing that has prompted me in writing this paper has been the fact that so much has been written about it in the recent medical and dental journals. Having thus proved a popular subject in England and elsewhere, I hope this effort of mine will help us to pay more attention to the same in Queensland.

One of the most important matters concerning mankind of this generation is that of "Dental Decay and Hygiene." It is a matter greatly overlooked by both medical and dental practitioners; and in the case of the former one is often much surprised to find with what little importance the presence of "dental caries" is regarded. Perhaps this lack of knowledge or attention is due to the fact of the newer profession being practised by specially trained persons, whereas the medical man was once the combined practitioner.

The examinations in recent years of the English Exam. Board are fast approaching that of a medical one with that in dentistry added thereto. The dentist, perhaps, may judge his medical brother from rather a high standpoint as regards his profession. The two professions must never be separated. Each day reveals that the one is fitted in with the other, and that both professions must work hand in hand for the success of each and the common good. The time is not far distant, I believe, when the medical man will be examined more minutely in dental surgery.

During last year's annual meeting of the B.M.A. at Oxford, dental surgery was included in one of its many sections. Mr. Rickman J. Godlee read a most interesting and useful paper upon the "Surgical Aspect of Oral Hygiene and Oral Sepsis." I take this opportunity of referring to it any who may not have read the paper. In it one has an eminent surgeon's views with how much importance dental surgery must be regarded as helping towards success in general surgery.

The opening paragraph refers to the saliva, and reads thus:—"Not infrequently whilst speaking I have noticed a minute drop, or rather a small bubble, of saliva escape from my own mouth and fall haphazard on whatever may have been in front of me. The observation has not been confined to myself, but has often been made in the case of other people, both medical and lay, and there is, in my opinion, no stronger reason—though a dozen strong ones might be offered—for preserving a decorous silence during the performance of operations, and of insisting upon the over-eager assistant keeping his head well away from the wound."

In pharyngeal operations—those common operations of childhood in these days—how often do we find the same being done whilst the teeth are not clean and badly decayed, and thus not able easily to be cleansed and freed from decomposing food, pus, etc.

How does such a condition of affairs compare with the long-continued care and trouble bestowed upon cleansing the skin by the nurse, say, before abdominal operations?

In the same way a dentist is equally neglectful if he fails to notice and draw attention to the presence of enlarged tonsils, adenoids, etc., in patients coming under his care. The presence of adenoids leads to mouth breathing, and this often is followed by *open-bite*, through the molars erupting higher than usual. It then becomes impossible for the child to make its incisor teeth touch.

Are not these typical cases where the one profession depends on the other?

Dental caries is the most common of all diseases. It has been my lot to see very few mouths (more particularly of those under 20) in which all the teeth were sound and in place. Great trouble and care is often taken in selecting the various foodstuffs of our daily diet, but how frequently is clean and wholesome food almost "poisoned" in the mouth, where the first and one of the very important chemical parts and also the most important mechanical part of the process of digestion should take place. Even in a healthy mouth, and one which is cleansed frequently each day, many organisms may be found, but how much more numerous and virulent are those found in a neglected mouth?

The evil results arising from carious teeth are frequently lifelong, and may be enumerated *ad infinitum*. How often one notices a scar on the face, the result of an alveolar abscess, or an infected gland primarily caused by a carious tooth. It is to be hoped the days are past when an alveolar abscess is allowed to discharge through the cheek, thus forming a scar either from the sinus or excisions. Such disfigurement should be avoided by allowing the abscess to discharge into the mouth, incisions, if necessary, being made in that cavity. Or how often do we notice an individual's facial expression spoilt by the loss of teeth—*e.g.*, one central incisor may be lost and the lateral incisor of the same side comes forward, and the remaining central incisor approaches it, thus diminishing or closing the space but at the same time altering the central line of the mouth, so that it does not correspond to that of the face. The difficulty in speech caused by the loss of teeth is well known.

The premature loss of the temporary teeth is in many cases the cause of irregularity in position of the permanent teeth—*e.g.*, the first of the permanent teeth to erupt is the six-year molar. The temporary molars being lost, this tooth erupts in a more anterior position and much nearer the middle line of the mouth than it should do. There is then not sufficient space for the teeth which erupt anterior to the first molar tooth to do so in a correct position; hence their irregularity in position or shape, also malocclusion. Irregularity in position of teeth renders their cleansing more difficult.

Very few mothers are cognisant of a molar being the first permanent tooth to erupt, and time and again it is learnt when a child of seven or eight has them so badly decayed as to require their removal.

It is important to remember how large is the masticating surface of the teeth in a child of six compared to that of ten or twenty years later. The smaller age has the greater surface for mastication in proportion to the years. The teeth are to help in nourishing their possessor, and their masticating surface is greatest when nourishment is needed most by the individual.

From the evidence given before the recent Royal Commission on Physical Training, it may be noticed that of 600 Aberdeen children examined 12·5 per cent. professed to use a tooth brush, 381, or 63 per cent., had decayed teeth of the first set, and 388, or 65 per cent., had decayed teeth of the second set.

From results of investigations made by the B.D.A., out of 10,000 poor-law children only 14 per cent. had teeth free from decay; while in high-class schools matters were worse. Out of 560 boys at Haileybury College only *thirteen* had sound teeth.

Dr. Morgan, of Swansea, made some investigations *re* children's teeth. The article, from which these figures are taken, was the tenth of a series in the *Lancet*, October, 1904. The ages of children examined were from 11 to 13. Of 151 boys there were 5 only with sound mouths and 572 carious teeth—average, 3·7. Of 144 girls, there were 6 only with sound mouths and 473 carious teeth—average, 3·2. I regret not having local statistics, but most people seem to think Australian children have very bad teeth. For my own part, I think they compare favourably with those of British children.

Many who volunteered for service in the late South African war were rejected on account of bad teeth. Forty-six per 1000 recruits are rejected annually in England on account of bad teeth, ten sound teeth only being required in each jaw. After about 1000 men on active service in South Africa were invalided home in consequence of bad teeth, three dentists were sent to the front. Within the last few years eight dentists have been appointed to the British Army Medical Service. The number is small but may be increased. Within the last few months three dentists have been similarly appointed to the British Navy. These facts show that the importance attributed to sound teeth has been recognised by the British authorities, and none too soon. It always appeared a strange thing to make stringent regulations regarding the teeth of the recruit, but after having entered the service no care was taken.

The law endows the American Army with 30 dentists, and it is, according to Dr. Frank, "an innovation which will serve as a model to all other nations." Canada has also followed in suit. In many German towns and also in St. Petersburg and Paris dental aid is provided to the poorer classes at the expense of the municipality of each place.

Causes of Dental Decay.—According to Small and Collyer's Textbook on Dental Surgery, several theories have been advanced as the exciting cause of dental decay. Briefly reviewed they are:—

1. *The Electrical Theory.*—Crown of tooth forms one pole and the root the other, the electrolyte being the saliva. In abnormal conditions of the saliva an electric current is produced, leading to a loss of lime salts in the crown of tooth.

2. *The Inflammatory Theory.*—Upholders of this theory believe an actual inflammation takes place in the tooth, both in the hard and soft tissues.

3. *The Chemical Theory.*—Decay thought to be caused solely by action of acids.

4. *The Parasitic Theory.*—Decay considered to be due to action of bacteria alone which produce acids by the putrefaction of the albuminous contents of dental canalicali, which acids destroy the matrix and thus help in process of destruction.

5. The accepted theory is that of Miller. He says : " Dental decay is a ' chemico-parasitical ' process, consisting of two distinctly marked processes."—(1) Decalcification or softening of the tissue ; (2) Dissolution of the softened residue. Enamel being inorganic, in this tissue the second stage is wanting. The decalcifying agent, lactic acid, is produced from many of the carbo-hydrates which may lodge in the mouth and undergo fermentation, either directly or indirectly. The enamel being dissolved slowly but surely by the acid, cavities are made in it. The dentine thus becomes exposed and is doubly attacked—the inorganic part by the acid and the organic part by the bacteria, which are ever present in the mouth. The action of the bacteria is similar to that of pepsin of the gastric juice upon albuminous materials. The process is helped by the tubular nature of the dentine. The pulp then after a time becomes exposed and dies, leaving what remains of the tooth practically as a " thorn in the flesh." Proof of this theory lies in the fact that it is the only way in which dental caries may be produced experimentally.

Now, let us examine this latter theory in respect to our modern methods of living. In these days of keen competition and hurry, " most people don't take food that requires chewing, or don't take time for properly chewing what they take." Food is thus taken which requires little or no work from the teeth.

One of the chief predisposing causes of the bad condition of the teeth arises from the extensive use of finely milled flour. It requires no mastication, and thus is readily bolted down. Its fineness also favours the lodging of this foodstuff in, around, and between the teeth. As an experiment, let one eat some fine white bread or arrowroot biscuits. After examining the mouth, cleanse it from this foodstuff, and then eat some wholemeal bread, and again examine the mouth. One will notice how very little of the latter foodstuff adheres to the teeth, and should any do so its presence is soon felt.

Regarding the mastication, great importance must be attached to the fact when we consider how large an item carbohydrates forms in a diet. Whether wholemeal flour or finely milled is the more nutritious or economical, it is not my intention to argue. In a diet such as Ranke's, which is 100 gr. proteid, 100 gr. fat, and 250 gr. of carbohydrates, assuming such is the case, imagine how much more work there would be for the teeth and jaws if the 250 gr. of carbohydrates were wholemeal bread instead of fine white bread. At the same time, imagine how much more thoroughly the food would be mixed with the saliva through proper mastication.

The blacksmith has strong and well developed arms through use, and why should not the teeth be strong and well developed if only we would use them ? Frequently one meets with teeth in all stages of decay, but very little, if any, sign of wear is present; in fact, the masticating surface is met with in a state of decay almost as often as the interstitial surface.

Our forefathers who fought at Waterloo or Trafalgar had much better teeth than the men who fought in South Africa. When the former battles were fought the steel roller flourmiller was not in existence.

How often do we notice the crust removed from the bread given children to eat ? Cruel are the mothers who do this ! When the child has teeth it should be given every opportunity of using the same to masticate its food. Teeth are not provided as a luxury ; they must be used, otherwise they are abused. The process of mastication ensures a more plentiful blood supply to the muscles, glands, etc., of facial region. Does not the frequent occurrence of adenoids, enlarged tonsils etc., seem to be accompanied with the present-day tendency to do away with mastication ?

The question is often asked, " Do sweets destroy the teeth ? " To make these delights of childhood cheap, cane sugar (which undergoes no change in the mouth) is substituted for invert sugar (glucose and levulose), which readily ferments in that cavity producing lactic acid. One can thus see the harm liable to follow from the early morning penny spent on the way to school.

Another disadvantage of white bread is that it does not find a ready sale if it is not snow-white. Does not this make a loophole for the use of chemicals such as alum and copper sulphate to improve the colour of inferior flour? The continual using of such bread and its lodging around the teeth assists their process of decay, besides doing harm to the system generally. Judging from the gigantic manner in which purgatives and laxatives are advertised, constipation must be a very prevalent complaint. Is not the substitution of finely milled flour for wholemeal a likely cause, inasmuch as the former has much less cellulose in comparison?

An equally important predisposing cause of dental caries is that of the feeding, or perhaps to be more correct, the "starving" of children. It must be remembered that as many as and as much of the crowns of the teeth that are visible at one year are in the jaws at birth though not visible. In reference to this matter I will limit the remarks to extracts from an article by Dr. Wm. Hall, of Leeds. Comparisons are made between the feeding of Gentile and Jewish children:—"The Jew, amidst poverty, dirt, and overcrowding, holds sacred the law that thou shalt not rob the child of his mother's milk, and he sees to it that his wife shall have help in providing for the maternal nursing and the subsequent feeding of the child. He will suffer hunger rather than ignore it; neither outdoor work nor outdoor frivolity is thought of by the nursing Jewish mother. It is during the first twelve months of life that the child's bony framework is laid, and one is struck with the success of the Jewish mother in promoting this early bony development. If a two-year old Jew is examined, the bones of the skull are firm and well knit together. The temporary teeth are well advanced, the long bones straight. From two years onward you will see this little Jew increasing in weight and stature by the aid of careful feeding on wholemeal bread, milk, eggs, oil, butter, fish, pudding and potatoes. By the time the little fellow reaches seven years of age he weighs four pounds more than his Gentile neighbour; at nine years of age he weighs seven pounds more. And now, from his better diet, another advantage accrues to him: he is forming good permanent teeth in a roomy jaw. His diet, too, seems to preserve these teeth and keep them clean. The bones which guard the inner chamber of the nostrils are firm and well developed. The nasal passages are free, and this happy gift makes the child a nose-breather, which is a great advantage to its physical development, and is helpful in the formation of a broad palate in which to insert the teeth. The V-shaped palate is very rare among the Jews and very common among the Gentiles."

In a recent cablegram it was reported that there were 1,000,000 underfed children in England. One cannot wonder at questions being asked regarding the national physique, and if this is deteriorating the teeth likewise must suffer.

Many consider the great predisposing cause to be due to a soft water supply. This may influence a little; but when one considers the huge quantity of water—even very hard water—that would be required to provide the requisite amount of mineral matter which the body requires daily, not so much importance can be attached to this cause.

In a recent paper by Dr. Henry, of Melbourne, and published in the *A.M. Gazette*, he mentions the fact that Scotch people coming from the Highlands always had a very soft water supply but very good teeth. We always associate Scotch people with oatcakes or oatmeal, and this would always be of a coarse kind and not so fine as that at present sold. The extra work of masticating this foodstuff accounts for their good teeth. The water supply of Glasgow is reckoned one of the purest in the world; yet Glasgow people these days have very bad teeth, and I am sure the old-fashioned oatmeal has been largely substituted for finely milled flour.

Another predisposing cause is that attributed to the use of flesh meat as a foodstuff. According to statistics of the existing primitive races, by Mr. Mummery, all showed some evidence of caries. Other points brought out by statistics are:—1. That in races existing wholly or in great part on vegetable food, caries is more prevalent than in races existing wholly upon meat. 2. That general hygienic conditions play as important a part as diet. 3. A regular and sufficient supply of food is important.

I have endeavoured to show that finely milled carbohydrate food as used, coupled with the diminished used of the jaws and teeth, is mainly responsible for presence of dental caries. Extracts from an article by Dr. Rose, of Dresden (from the Central Office for Dental Hygiene of Dresden), upon the teeth of the inhabitants of Dalarne (a district of Sweden) and Gothland (a neighbouring island), bear out my conclusions. The article was published in the *B.D.A. Journal*, Feb. 1, 1905.

The Dalarne people owe their good teeth, in the first place, to their hard bread, and, next, to their generally simple and natural mode of living. As I (Dr. Rose) have already shown in a former article, the Dalarne peasants' bread may be regarded as ideal from the standpoint of dental hygiene. This hard bread forms, with milk and cheese, thc chief element of nourishment of the Dalarne peasants. In the church village in the Siljansse, where there has lately been an influx of summer visitors, the more refined mode of life is already beginning to spread, from the hotels to the well-to-do classes. Fifty years hence the teeth there will not be so well preserved as they are to-day ; but the more outlying districts of Dalarne are still but slightly affected by town civilisation, and a traveller who is not content with the simple fare of the Dalarne peasants has to bring his own delicacies with him.

In contrast to Dalarne, the island of Gothland is notorious for the bad teeth of its inhabitants ; and, indeed, my investigation proved that the Gothland children, if they have not the very worst teeth in Sweden, come very near it. Whilst on the Swedish mainland, the primitive stone, which is poor in lime, predominates, Gothland forms a plateau of chalk belonging to the silurian formation, which is overlaid in many places with detritus from the Ice Age. The bad teeth in the island of Gothland, which is rich in lime, have therefore been used by many as an argument against the universal application of the lime theory, but without any justification, as I shall show in a larger work which I propose to bring out at a later date; the nutritive salts contained in the fruits of the earth only vary to a small extent. What is really of the greatest importance in the formation of the teeth is the hardness of the drinking water. It is, however, a generally accepted rule that drinking water from carbonic limestone is not particularly hard; above all, it is not permanently hard. To this rule there is in Gothland no exception. In Visby & Slite the hardness which remains varies from 3·9 to 4·5 degrees (German standard of hardness). It is also somewhat less than in Dalarne, where in Leksand and Rattvik the average is 4·5 to 4·8 degrees. Quite in accordance with the medium hardness of the water, the Gothlanders' teeth are not at all badly developed. They have fairly good, whitish-yellow or whitish teeth. The average hardness of the Gothland drinking water varies in different places which have been examined from 8·7 to 26·9 degrees. If these places are divided into three degrees of hardness with a difference of 5 degrees of hardness each, it will be seen that also in the island of Gothland the good quality of the teeth increases in proportion to the hardness of the drinking water.

The teeth of the Gothlanders are, therefore, on an average not particularly badly formed, only badly preserved. There must consequently be conditions there which rapidly destroy the teeth. The Gothlanders' face is certainly longer, but the difference is not sufficient to explain the decidedly worse-preserved teeth, and we must consequently return to their diet ; and, as a matter of fact, the bread eaten by the Gothlanders is of the worst possible kind as affecting the teeth. The Gothland peasants' bread is like Westphalian pumperknickel—a dark brownish-black colour—but it is soft and pasty, and, consequent upon being worked too long in the dough trough, it is so indescribably sour that only a Gothlander can eat it.

In consequence of the soft food, the chewing muscles, the jawbones, and the saliva glands of the Gothland population are imperfectly developed, and it would be vain to look for such powerful masseter and temporal muscles as are to be found amongst the inhabitants of Dalarne.

In no other country, not even in the northeast of Switzerland, which comes next in order, are such narrow sets of teeth and V-shaped upper jaws to be found as in the island of Gothland. In the analyses of saliva made by the chemical engineer, Ragnar Berg, by order of the Central Office of Dental Hygiene some months ago in Sweden, it appeared that the saliva alkalinity was considerably less in Gothland than in Dalarne, while for instance in Slite the average alkalinity equalled 3·9 c.cm. $\frac{n}{10}$ HCl., against 5·9 $\frac{n}{10}$ HCl. in Rattvik.

It is the exceptionally hard bread eaten by the peasants in North Sweden that preserves the teeth of the Dalarne people and keeps them in such sound condition ; whilst the Gothlanders ruin theirs by eating black bread which is soft and sour, and which, furthermore, contains sugar.

DENTAL HYGIENE.

Whether dental decay is the result of malnutrition or *vice versa*, we are very unlikely to find the individual in whose mouth carious teeth are present to enjoy good health. It is remarkable to notice the great change in health and spirits which takes place after the removal or treatment of carious teeth. The teeth form one of the most wonderful and intricate structures in the body. Their histology has given rise to no end of research and discussion. The process of calcification is enough almost to engage one in a lifelong study. Although the enamel is such a hard tissue and covering all the crown, slowly but surely the comparatively weak lactic acid does its work. Teeth must be kept clean, as clean teeth do not decay. One makes a great mistake in thinking that they require no care. This policy may have suited the times when the flour used was not finely milled.

No one can be expected to use a toothbrush to clean the food thoroughly from the teeth whilst teeth are present with exposed pulps. One tooth with an exposed pulp if not attended to by the dentist may lead to neglect in cleansing all teeth on that side of jaw, and perhaps cleansing may be omitted altogether. The child cannot learn the habit—it might be called a duty—too soon. Once acquired it becomes lifelong.

Stanley, in his " Darkest Africa," mentions the care bestowed by the natives met with upon their teeth, especially after the evening meal.

In these days of artificial, pre-digested, and finely-ground foodstuffs the greater is the risk of the child soon losing its teeth. The food lodges between and around the teeth, and the places where it lodges are where the process of decay begins. Teeth should be cleansed after every meal, and especially last thing before retiring to rest, as the action of organisms, etc., is not disturbed so much as in the daytime.

Personally, I favour the use of a tooth rake, not a brush. By this I mean a brush that has spaces almost as wide as the teeth between the rows of bristles placed from side to side. It is used to clean the food out from between the teeth, not to pack it in firmer, as many brushes are apt to do. It is used with a twisting movement, not so much in an anterior-posterior direction. A brush with the bristles all close together has also a disadvantage in not being hygienic, on account of the food lodging between the bristles. A valuable adjunct to the brush is an antiseptic mouth wash. This is found in a most convenient form in reliable brands of carbolic tooth powder. Cheap tooth powders are injurious, inasmuch as many contain free acids, which quickly cleanse and also destroy the teeth. Their use is to be avoided. Even after cleansing thoroughly with a brush it is possible to find food on floss silk which has been passed between teeth. The careful use in this manner of floss silk is recommended.

Dentures should be cleaned free from food, and also the mouth, before replacing them. They should also be frequently left in antiseptic solution. When it is inconvenient for one to use a toothbrush after a meal, it has been my custom to recommend rinsing the mouth with water several times, and this to be assisted with a toothpick. Much of the food may be cleared from the mouth in this manner.

In many schools it is the custom for the children to have their hands examined regarding their cleanliness. The pity is that the same attention is not paid to the teeth.

The dentist should be visited regularly, and at least twice a year, and not only upon the presence of toothache. " A stitch in time saves nine," so also may a filling in time. When cavities are small, children have very little dread and fear of the dentist hurting them. Those who have the care of children should be very particular not only about their teeth but also those of the nursegirl. The average nursegirl is perhaps very fond of kissing and hugging her little charges, but few seem to realise the great risk of infection that the little ones are exposed to should her mouth be neglected and carious teeth prevalent.

The most neglected mouth ever I heard about was that of a patient reported and illustrated in *Ash's Quarterly Circular*, September, 1903.

"A partial lower denture became buried in tartar (salivary calculus) and lost sight of by the patient. This extraordinary mouthful, which had forced up the tongue and caused the patient a considerable amount of pain and discomfort in speaking and swallowing, was diagnosed by a general medical practitioner as a " bony growth on the lower jaw." He advised application for admission into a general hospital with a view to the patient undergoing an operation for its removal ; but before acting upon his advice the patient sought the aid of a dentist for the removal of an offending upper molar. Instead of extracting only one upper molar, he found it necessary to extract two. Examining the mouth, he discovered two artificial lower incisors, almost hidden under the mass of tartar which had quite obscured the metal band and entirely capped the adjacent teeth. Upon being questioned the patient remembered having had a lower piece fitted in the mouth over 15 years previously, but he said it had never been taken out, and he had quite forgotten its existence. With considerable trouble it was removed, and brought away *en masse* with four other teeth which remained in the lower jaw. Profuse intermittent hæmorrhage and considerable sloughing of the gums continued for about four weeks after the removal of the denture, but with the daily use of an antiseptic mouthwash the mouth eventually assumed a healthy condition, and complete new upper and lower dentures were made, which are now being worn by the patient with comfort and satisfaction."

This is no doubt an extraordinary case of neglect, but there is not the attention paid to the hygiene of the mouth that it requires. It behoves us to take every opportunity of instructing those ignorant of the evils liable to arise from a neglected mouth. Neglect of the teeth leads to great pain and personal inconvenience, to say nothing of the incalculable harm the system generally may suffer.

Such is a brief outline of the subject, and I hope the same may give rise to more interest in the teeth and their care.

In conclusion, I wish to draw attention to the very great need there is in this city for a dental hospital. Some provision should be made for the truly suffering poor and also for our present students of dentistry to learn something about dental surgery before commencing a profession, which has almost become a science. I think each one here has thought many times of the pain suffered by many through toothache, and must be alive to the situation. A Dental Act to limit the practice of dentistry by only competent persons, and no opportunity given for study, is not true socialism—of which we hear so much these days. In suggesting this, I feel also it will be almost impossible to have a satisfactory course of dental study without its equally important parent—a medical course. To accomplish either satisfactorily it behoves every member of each profession represented here this evening to do the utmost to have established at an early date in our midst a University. Situated as we are in a climate or land in which peculiar and puzzling disease occur, the same can be studied best amidst their surroundings. Is not a medical school a much-needed necessity ? and how many universities have their beginning from medical schools ?

(Read before the Queensland Branch of the British Medical Association.)

TWO GYNÆCOLOGICAL CASES.

By H. W. Bryant, L.R.C.P. & S., etc., Melbourne.

CASE I.—Mrs. W.S., *æt.* 31, multipara.

Previous History.—Her last child was 3 years old. Menstruation had always been regular, and she always had been a strong, healthy girl. Her confinements had been natural, but after the second confinement she had prolapsus uteri, which appeared to get well after she had worn a ring pessary for a few months.

Present History.—The patient always suffered from costiveness, often going a week without any action of the bowels unless she took an aperient. Last month she went four days over her time, the supposed cause of this being a chill. On June 8th, 1895, at 3 a.m., she was seized with pains in the lower part of the abdomen. As her bowels had not been open for three days she gave herself an enema of hot soapy water, and this slightly moved the bowels. The pain still continued, and about midday she gave herself another enema, with a similar result, but the pains still continued, and vomiting also started. At 11 p.m. the bowels acted freely, but when she tried to get up she felt faint. Urine had been passed freely at times during the attack. The vomiting and pain continued all the night, and on June 10th, at 8 a.m., I saw the patient for the first time. Her legs were drawn up, her face was pinched, the skin and conjunctival membranes had a slight yellowish tinge, the abdomen was slightly swollen, but not very much, and she complained of intense pain all over the abdomen, but especially in the pelvic region. The temperature was 100° F. and the pulse 140, weak and thready. P.V. examination :—the os was in or very near the proper axis of the pelvis, and nothing could be felt abnormal except pain on pressure and slight thickening in the region of the left Fallopian tube and leading up to the left ovary. Palpation revealed very little, as the pain was too severe to allow a very careful examination. A hypodermic injection of ¼ gr. of morph. mur. was given, and glycerine bellad. ordered to be applied over the abdomen, and ext. opii. gr. ½ and ext. bellad. gr. ¼ to be given in pill form every two or four hours until pain relieved. Midday.—The pulse was still thready and 136, but the vomiting had stopped, and the patient was getting easier. 10 p.m.—Temperature, 101°, pulse 120, pains easy. P.V. examination revealed a doughy mass surrounding the uterus, and extending upwards and to the left. The upper part of the abdomen was now quite free from pain.

June 11th.—Morning temperature, 99°, pulse 120. Patient much easier, and had slept fairly well during the night. P.V. examination showed that the doughy mass was more defined, and seemed to be not only surrounding the uterus but extending upwards along the rectum to the sigmoid flexure. This enlargement could also be plainly felt from the abdomen anteriorly in the left iliac region. Night temperature 98, pulse 120.

June 12th.—Morning temperature, 99·4°; pulse, 120. Had passed a bad night, vomiting bilious fluid. The vomiting brought on pain in the left iliac region. A vaginal discharge, apparently menstrual, appeared today.

June 13th.—Morning temperature, 98·4°; pulse, 116; evening temperature, 99·8°; pulse, 126.

June 14th.—Morning temperature, 99·6°; pulse 100. P.V. examination showed that the uterus was fixed in a hard mass which had lost its doughy consistency and now felt like plaster of paris.

From this out the symptoms gradually abated. The bowels were kept free by means of saline aperients, followed by enemas every second morning, and after the menstruation ceased glycerine and icthyol plugs were packed into the vagina night and morning, and each time on removal a good warm water douche was given.

Absorption went on gradually, and as the pain decreased all opiates were left off, and simply linseed meal poultices were used at night if any abdominal pain occurred.

The patient was allowed up on the 21st July, and P.V. examination showed that all the mass that had surrounded the uterus was completely absorbed, and that the uterus was not bound down by adhesions, but was quite freely movable in every direction. She has menstruated regularly since, and was well when last seen in 1904, but she has never had any sign of pregnancy since.

The diagnosis of this case at first was not easy; pelvic peritonitis, pelvic cellulitis, and hæmatocele had to be differentiated.

The early symptoms very much resembled those of hæmatocele, but the after symptoms pointed to pelvic peritonitis. The fixation of the uterus by a general effusion in a central position, which became first doughy and then exceedingly hard, and then the gradual absorption of the mass, leaving the uterus free from adhesions, all point to a simple pelvic peritonitis. The probable cause of the attack was no doubt suppression of the menses due to a chill. Bernatz gives an account of 99 cases; 20 out of these were set down to disturbances of the menstrual function. In three cases of incomplete menstruation no cause was apparent. Twice it occurred after severe dysmenorrhœal pains; fifteen times after sudden suppression. Of these 15 cases the cause of suppression in 9 was cold, severe mental emotion in 3, a speculum examination in 1, cauterisation of the cervix in 1, frequent sexual intercourse during menstruation in 1. The effect of cold is probably to induce an endometritis, which deranges the menstrual function. Twenty-eight out of Bernatz's cases were due to gonorrhœa, producing a gonorrhœal endometritis, which extended by continuity of tissue along the Fallopian tubes to the peritoneum.

Case II.—On July 26th, 1897, I was called to attend Mrs. F., *æt.* 31 (multipara), for a flooding.

Previous History.—She had three children, the last being 3 years old. Her last child had to be turned, and she stated that she had never felt well since that confinement. In July, 1895, an Emmett was performed upon her at the Homœopathic Hospital.

Present Condition.—She was having alarming hæmorrhage from vagina. Examination per vaginam showed an anteverted fundus uteri, the os pointing backwards; the cervix was not shortened, but the os was open slightly, being very hard and fibrous to the touch. The lower segment of the uterus anteriorly could be felt bulging downwards into the vagina. The pains were very strong and intensely painful, and the pulse thin and rapid. After plugging the vagina tightly, ext. opii. gr. 1 was administered to ease the pains, but they did not lessen very much, and continued until 3 a.m. July 27th, when after a violent pain the plugging was expelled along with a two-months' fœtus, and very free hæmorrhage set in again.

On examining per vagina an adherent decidua was made out, also great laceration of the cervix. Under A.C.E. the decidua was removed and a silkworm gut suture put through each torn angle of the cervix. The tear extended above the old operation stitches, from the vaginal mucous membrane on the one side to the opposite side. The posterior portion of the lacerated cervix hung down into the vagina, and was almost black.

The patient made a slow recovery without any untoward symptoms, except that the posterior portion of the os came away in sloughs. In three weeks the parts had healed, and the patient was able to be about again.

(Read before the Victorian Branch of the British Medical Association.)

ANTI-DIPHTHERITIC SERUM.—A CLINICAL REPORT UPON ITS USE IN 37 CASES.

By V. W. Savage, M.B., Ch.M. (Syd.), Oatlands, Tasmania.

The value of anti-diphtheritic serum is so well established that any further communication on the subject seems hardly justifiable. Nevertheless a recent outbreak occurring in the writer's practice at Oatlands, Tasmania, seemed to him to perhaps offer a few clinical observations to excuse this publication. The outbreak occurred early in the present year (1905), and comprised 37 cases with one death.

The first case seen was a boy, age 7, ill two days with sore throat and nose; running about until seen early on the morning of January 2nd. He was then sitting up in bed. Temperature 100°, pulse 110, respiration 28. Nose and throat both inflammatory, with distinct patches of membrane. Sharing the same bed was a younger brother, age 4, also with membranous condition of throat, though nose not affected. An elder sister, age 8, had suffered from a sore throat about a week previously, caught, according to the parents, at school. At 3 p.m. the same day an urgent message was sent stating the child was much worse, and on arrival the little patient was found almost pulseless, no dyspnœa, and died shortly after.

Unfortunately, antitoxin could not be obtained before 10 p.m., on the arrival of the local train from Hobart. Even on procuring the antitoxin there was considerable difficulty in persuading the mother to allow the other little fellow to be injected, and this was only done by using a small hypodermic syringe, and refilling without withdrawing the needle. The baby, age 9 months, also showing distinct membrane in the throat, received a similar allowance of antitoxin (1500 units). A tube containing 2000 units was used for each, but allowing for waste due to refilling of syringe the dose may be reckoned at 1500. The next morning the boy was decidedly better, the baby much about same. Repeated 2000 units into each, this time using proper antitoxin syringe.

The writer strongly urged the prophylactic injection of the rest of the family, but without avail. The other members, one by one, developed the disease, when the mother and a girl aged 10 received prophylactic injections of 1000 units each, these being the only two members of the family to escape.

The outbreak spread rapidly through the township, 24 cases being reported in less than three weeks. The majority of these were seen on the first sign of trouble, and the serum early injected. In practically all cases an injection of 2000 units caused an immediate amelioration of symptoms, a few cases seen later in the course of the disease requiring repeated injections. In all cases, with the exception of one seen late, when 4000 units were used, 2000 units was the dose given, repeated twice daily when no, or only slight, improvement was shown. The greatest amount received by any one patient was 12,000 units.

In all there were 37 cases, one ending fatally (this case did not receive any serum). There were five cases showing palatal paralysis.

During the epidemic the writer accidentally broke the needle of his syringe, and eight cases were given the antitoxin by the mouth. In these cases, all seen early, 4000 units were given with 5 oz of water, 1 oz. every hour. All were mild cases, and none showed after-paralysis. It might be added that after the throat had cleared and symptoms abated the antitoxin was continued by the mouth, *ter die*. The sanitary condition of most of the houses was anything but satisfactory, a few disgustingly so.

During the outbreak 46 persons received prophylactic injections, some 500 units, others 1000. All of these were exposed to the infection; none developed the disease.

A marked feature of the outbreak was the immediate clearing up of the throat with practically an aborted attack after the injection in those cases seen early. In the majority of these cases no further injections were made, chiefly owing to the supply of antitoxin being at first limited, and also to patients in some cases refusing to have further injections. It is also interesting to note that four of the five cases showing paralysis were amongst the mild cases seen early and only receiving one injection of serum of 2000 units. The paralysis became evident from two to five weeks later in all cases, being of a mild character, and disappearing in a few days in one case to three weeks in the most protracted.

Whether this is to be accepted as clinical support to Ehrlich's theory of the existence of diphtheria toxin (causing the more chronic paralytic trouble) as separate from diphtheria toxin (causing the acute cardiac symptoms), the writer is not prepared to say. At least it seems probable that the one injection given neutralised the active toxin (as shown by the rapid improvement in the cases), but was insufficient in amount to so act upon the more chronic toxin with the consequence of later developed paralysis. (See R. P. Van Calcar, *B.M.J.*, December 24th, 1904, epitome 371.) Amongst those cases treated orally there was no sign of paralysis, perhaps because here the serum was taken well into convalescence, thus neutralising the toxin.

Amongst the prophylactic cases there were two with well marked urticaria covering the whole body, with slight rise of temperature, and intensely itching. Some of the others (five in number) exhibited urticaria of the extremities, in all cases marked by itching. Onset of rash occurred about seven days after the injection, lasting as a rule about 24 hours. Urticarial rash was only met with in those receiving prophylactic injection. There were no other complications.

From the observed cases the writer would draw the following conclusions:—1. That the anti-diphtheritic serum is undoubtedly prophylactic to diphtheria. 2. That the serum when given by the mouth, though not so effective as when injected subcutaneously, is certainly effective at least in early cases. 3. That in every case the writer would give a further injection of 2000 units upon the commencement of convalescence as a prophylactic against paralysis. 4. That the disease can be practically aborted if antitoxin be given early enough. 5. That, excepting for a slight feeling of tenseness at site of injection, and later, perhaps, the development of an annoying urticaria, the injection is painless and harmless.

"THE BIPOLAR FARADIC CURRENT" IN THE TREATMENT OF OVARIAN PAIN.

By M. A. Schalit, B.Sc., M.D., Delegate, N.S.W.

In his address delivered at the first anniversary meeting of the British Electro-Therapeutical Society, Dr. E. D. Owen said, very justly, that the subject of treatment of disease by electricity has hitherto received but scant professional courtesy and recognition in England. It has been allowed, so to speak, to lie in the mud. Not so with the camp followers of our profession. They have quickly picked it up, and used it as a means to an end, which well suited their requirements, and often, alas! have succeeded where the orthodox practitioner has failed. In other countries, particularly in France, where the works of Apostoli, Tesla, and D'Arsonval have done so much to bring it within the reach of therapeutical adaptation, electricity has established for itself a firm position as a branch of medical science. Here (in this country) the public consider it *infra dig.* for a duly qualified medical man to use electricity as a curative power, and when I first applied it on one of my patients he returned to me next day to inquire if I was a duly and legally qualified practitioner. I have tried it in many cases, keeping strictly to the methods laid down by the Electro-Therapeutical Treatise, employing especially the galvanic and Faradic batteries.

In utilising the first-named for electrolysis purposes—bipolar electrolysis, as in the treatment of conjunctivitis granulose (my own method) and electrolysis of tuberculous fistules (Dr. Dribocsseau Du Rocher's method)—I have been more than satisfied.

Some of the cases treated by "electrolysis" by myself I have already published*; others which I have under observation will be published at a later date.

---

* "L'electrolyse bipolaire dans le traitment de la conjunctivite granuleuse." Genève, 1900.

The latter treatment (Faradic) I have used as a soothing agent—firstly, in order to deaden neuralgic pain, and again, in more important cases relating more especially to ovarian troubles; and I can say with the greatest confidence that I have gained the most satisfactory results. I will give the observation of three cases (cured by Faradic treatment).

FIRST CASE.

Mrs. S.A.N., 25 years of age. Father alive and in good health; mother alive, suspected of tuberculosis; brothers and sisters in good health; some of the latter are subject to painful menstruation. Patient menstruated at 13 years, every 28 days, slightly painful, no clots, until the age of 15. Since then pain has been increasing with every menstruation. She has consulted several doctors, who have treated her by the usual means for dysmenorrhœa without satisfactory results. At the age of 19 (October, 1900) she went to Sydney, where a partial ovariotomy was performed on the left side. Till the following June she experienced no pains; after that time they returned as severe as ever. In December of that year (1901) she underwent another operation. On opening her abdomen a micro-cystic degeneration of the left ovary was found, also a cyst the size of a large marble in fimbria of the right tube. Three-fourths of the left ovary were removed, and some adhesion separated from the sigmoid, and a cyst of the fimbria opened. The result was practically the same as in the former operation. The relief lasted about four months. Having been advised to seek refuge in married life, she married a young man of her own age. For over 15 months the marriage proved sterile, but the pains in the meantime increased intensely. Whereas at the beginning the severity of the pain was felt once a month, with respite between her menses, now they were felt, between, periodically, increasing in severity to the eighth day. At that time (May 7th, 1903) she consulted me. My diagnosis was dysmenorrhea, of ovarian origin. In a short time I exhausted every classical means which therapeutics lays at our disposal by scarification, curetting the uterus, leeches, blisters, with poor results. All kinds of opiates with no effect; hypodermic injection of morphine gave slight relief; cocaine and antipyrine injections gave ameliorating results, but failed at the end of eight hours. The pain was so severe, especially during the eighth day, that only general anæsthesia of chloroform would give relief, keeping her sometimes for hours under ts effects. Seeing the meagre results of my treatment, I insisted on her immediate removal to Sydney in order to undergo total hyster-ovariotomy. Everything was in readiness for her departure, when she burst into tears and beseeched me to have yet another trial. I then had recourse to electrical treatment as a forlorn hope.

I first tried a course of treatment with the galvanic battery, as advised in several treatises, with unsatisfactory results, even when I used cataphoresis with cocaine solution on the positive pole. I then turned my attention to the "Faradic treatment."

On my first application I was astounded with the deep soothing effect produced. After a 15 minutes' sitting she obtained a cessation of pain for two hours. I repeated the application in 12 hours' time, with the result of a longer respite. After a month's treatment I noticed that not only the pain grew fainter but even the periodical paroxysm on the eighth day was disturbed. I next taught the patient how to use and apply the current, and also the manner in which to lessen by degrees the strength of the current, as well as the length of the sitting. The method of application was simple and easy. Acting on the principle that a "Faradic current" tetanises the nerve, but does not destroy any tissue, I thought to exhaust the sensitiveness of that portion of the ovarian plexus without endangering the ovarian paranchyma. To obtain this result I introduced two probes into the vagina in such a manner as to enclose as far as possible the remainder of the left ovary. The strength of the current, which I derived from the secondary coil of a small Faradic battery, was used in accordance with the power able to be borne by the patient. The sittings were sometimes prolonged beyond the ordinary limit, but generally 15 minutes was entirely sufficient. Although the eight-day paroxysm was quietened and the pain fainter, the dysmenorrhœa was still present. I therefore came to the conclusion that the patient's ovarian pain was due to the activity of the organ at certain periods, and if we could bring it to a state of rest without a radical operation, which the patient refused to undergo, it immediately struck me that if we could induce pregnancy the pain would be suppressed, the organ saved, and the problem solved. The desire to become pregnant was extreme, but any sexual intercourse was exceedingly painful, consequently she had never had her desire fulfilled. Thinking that the pain was the cause of the sexual act not being completed, I advised her to use the battery immediately before any sexual intercourse. This she did, with the result that three months later she became pregnant. She experienced in the beginning intractable vomiting, backache, and a pain in the left side, which faded away by degrees as pregnancy advanced. She applied cautiously now and again the battery, which proved beneficial. At the beginning of September, 1904, she gave birth without difficulty to a healthy female child. I ordered her to keep her bed for a month, and owing to the abundant secretion of milk I ordered her to nourish her own and another child for a few months in order that this wholesale subtraction should act as a deviation from the genital system. She followed my instructions faithfully, with the result that she is no longer an invalid, but on the contrary able to perform all her household duties as if she had never been in such bad health.

SECOND CASE.

Mrs. P. Parents alive, two brothers in good health, one sister died from heart disease. First menstruated at 14 years; slightly painful, but fairly regular. Married at 21 years to a man a few years older than herself. Has had three children (alive) and one miscarriage. Nothing remarkable had happened until the beginning of March, 1903, when she gave birth to a healthy male child. The cervix was badly torn in several places, and stitched up in Melbourne, where the accouchement took place. She left Melbourne shortly after and travelled a few hundred miles by rail, steamer, and coach. This travelling seems to have brought on a return of venous congestion of the ovary (produced by the great vascular development of her precedent pregnancy). She was nervously exhausted, and experienced great ovarian pain, exaggerated on the left side; the womb also was very congested. When I was called to attend her at the end of May I found she had been in this state for three months. I administered an opiate and curetted the uterus, partly to ascertain if any of the afterbirth had been left behind, and partly to relieve the congestion of the pelvis. The operation was followed by an absence of pain, lasting 48 hours; at the end of that time the ovarian pain returned as severe as before.

As I had at this time the first-mentioned case under my care, and as the usual sedatives had failed in this case as in the other, I resolved to lose no time and forthwith applied the " Faradic treatment," and was successful in not only obtaining a soothing but also, I daresay, a curative effect. Mrs. P. remained under my treatment for a couple of weeks longer, and left me with the full satisfaction of being cured. She drove home, over 70 miles, without the least inconvenience, and has been enjoying good health for the last 20 months.

THIRD CASE.

Mrs. C., 42 years. Mother alive, 82 years, in relatively good health. Father died suddenly at 62 from unknown cause. One sister, suffering from Bright's disease. Menstruated at 13, irregular and painful, with hysterical fits. Married at 22 to a man a little older than herself. Shortly before her marriage, on lifting a heavy weight she felt a severe pain in her left side. She was laid up for two months. Then she proceeded to Sydney, where a doctor diagnosed a "*permanent prolapsus* of the ovary with anteflexion," and advised an operation, which she refused to undergo, and returned home, living a miserable life. Pain on every occasion of menstruation. In June, 1903, she consulted me, and I found on examination that the left ovary was inflamed and very painful on being touched. The uterus was anteflexed. The left kidney was movable. I ordered a suitable pessary, but it was unbearable and had to be removed. A kidney belt, which gave relief to the patient, was substituted. As the pain was severe I used "Bipolar Faradism." The result was remarkable, and after several sittings she left me with the knowledge that she had never enjoyed better health before in her life; and though she has slight pains now and again, they are not severe enough to necessitate anything further than an application of the battery.

I have treated several other cases with much the same result. The second and third observations have been chosen at random from among my cases. Of the three observations mentioned, the first shows most emphatically the powerful soothing effects of the " Faradic treatment." In the many cases in which I have used this treatment,

SUPPLEMENT TO THE AUSTRALASIAN MEDICAL GAZETTE, June 20th, 1905.

AUSTRALASIAN MEDICAL CONGRESS

SEVENTH SESSION, ADELAIDE, September 4th to 9th, 1905

President Elect: PROFESSOR E. C. STIRLING, C.M.G., M.D., F.R.C.S., F.R.

Retiring President: THE HON. G. H. BUTLER, M.R.C.S., L.R.C.P., HOBART.

Under the patronage of His Excellency the Right Honourable the Lord Northcote, G.C.M.G., G.C.I.E., C.B., Governor-General of the Australian Commonwealth; the Lord Tennyson, late Governor-General; their Excellencies the Governors of the Australian States, and the Governor of New Zealand; and the Lieutenant-Governor of South Australia.

THE WORK OF THE CONGRESS WILL BE DIVIDED INTO SEVEN SECTIONS:

	PRESIDENT.	SECRETARY.
1. **Medicine**	Dr. Colquhoun, Dunedin	Dr. Swift, Adelaide
2. **Surgery**	Dr. F. Bird, Melbourne	Dr. W. Anstey Giles Dr. Charles Todd, Adelaide
3. **Gynæcology and Obstetrics**	Dr. W. S. Byrne, Brisbane	Dr. J. A. G. Hamilton, Adelaide.
4. **Eye, Ear, and Throat** ..	Dr. A. J. Brady, Dr. W. Odillo Maher, Sydney	Dr. Charles Hamilton Dr. M. J. Symons, Adelaide
5. **Pathology, Anatomy, Physiology and Pharmacology** ..	Prof. D. A. Welsh, Sydney	Dr. W. R. Cavenagh-Mainwaring, Adelaide
6. **Public Health**	Dr. W. G. Armstrong, Sydney	Dr. T. Borthwick, Adelaide
7. **State Medicine & Medical Ethics**	Dr. G. A. Syme, Melbourne	Dr. A. A. Hamilton, Adelaide

STATE SECRETARIES OF CONGRESS:

New South Wales: A. A. PALMER, M.B., M.S., F.R.C.S. (Edin.), 149 Elizabeth-st., Sydney
Victoria: G. A. SYME, M.B., M.S. (Melb.), F.R.C.S., 19 Collins-street, Melbourne.
Queensland: W. W. LOVE, M.B., M.S. (Edin.), 55 Wickham Terrace, Brisbane.
West Australia: A. J. H. SAW, M.A., M.D., B.C. (Cantab.), 484 St. George's Terrace, Perth.
Tasmania: GREGORY SPROTT, M.D., Ch.M., D.P.H. (Glas.), 66 Macquarie-st., Hobart.
New Zealand: J. O. CLOSS, M.D., Ch.M. (Edin.), George-street, Dunedin.
Treasurer: W. T. HAYWARD, M.R.C.S., &c., North Terrace, Adelaide.
Secretaries: B. POULTON and J. B. GUNSON, Adelaide.

The payment of One Guinea, nett, constitutes membership and entitles to a copy of the proceedings of Congress.

The Railway Departments of Australasia will issue concession tickets to members and their wives for the return journey at single fares on presentation of certificates from the State Secretaries of Congress, countersigned by the railway authorities. It is anticipated that reductions in fares, similar to those granted in previous years, will be made by the inter-State steamship companies.

If desirous of becoming a member, be good enough to sign the accompanying form and transmit it to the secretary for your State.

AUSTRALASIAN MEDICAL CONGRESS.—SEVENTH SESSION.

To..

STATE SECRETARY OF CONGRESS.

I consent to become a member of the AUSTRALASIAN MEDICAL CONGRESS to be held in Adelaide in 1905, and enclose subscription of £1 1s. nett.

SIGNATURE ....

QUALIFICATIONS ....

ADDRESS ....

both here and abroad, I have never known it to fail in producing a soothing effect, and although I had never tried it before, I did not believe in its possibility as a curative agent. True, it may be objected to on the grounds that the cure is the result of suggestion, derived from the buzzing of the battery on an hysterical subject whose nervous system has been weakened by ailment. We will at once see that such an objection is a fallacy, as it is well known that no matter what amount of current is turned on, either weak or strong, the buzzing sound is always the same. The soothing effect was not obtained by the use of a weak current, but, on the contrary, in every instance the strongest current able to be borne by the patient had to be used. One other remark in regard to the removal of the ovary mentioned in connection with the first subject under observation. In the many operations of this kind at which I have assisted I have seldom known such conservative practices to lead to a definite cure, and where they have, I am inclined to think these interventions with the knife would not have been necessary if the "Faradic treatment" had been insisted upon.

In conclusion, it is my humble opinion that when the last-mentioned treatment (Faradic) fails, complete excision of the ovary should be performed; and if the second ovary is touched by disease, be it ever so slightly, the whole of the generative organs should be sacrificed without delay, in order to save the patient a life of misery and pain.

CLINICAL AND PATHOLOGICAL NOTES.

A CASE OF QUADRUPLETS.

Mrs. G., *æt.* 32, of French extraction, married 12 years, with a family history of twins on her maternal side, gave a personal history of six previous confinements, resulting in delivery of ten children in following sequence:—Twins, triplets, a single child, then twins again and two single children, all of whom are living except the triplets, which were premature seven months.

In addition, 18 months ago she had a placenta previa with decomposing fœtus at five months, which necessitated removal piecemeal under anæsthesia.

On May 22nd patient was examined, owing to slight escape of liquor amnii, and twins (at least) diagnosed, as two or more fœtal heads could be felt in her enormously distended abdomen, but no distinct fœtal heart sounds could be made out owing to loud uterine souffle.

On May 26th, being then eight months pregnant, slight uterine contractions came on at 2 a.m., with only slight pain, and on examination the head of the first child was found on perinæum, and it—a boy—was born within an hour. Membranes of the second child being ruptured, a head was felt presenting, but it was delayed by the third child's feet at the brim being impacted against the head of No. 2; this necessitated slight chloroform anæsthesia and introduction of hand to push up feet of third child and to bring down second child's head into cavity of pelvis, whence it—a boy—was easily and rapidly delivered by forceps about three-quarters of an hour after delivery of the first. The third—another boy—was easily seized by feet and delivered five minutes later, but was stillborn and resisted all efforts at resuscitation.

The pains now became much stronger, and after rupturing the membranes, fourth child —a girl—was born as a breech presentation a quarter of an hour after the third.

Until then there had been no hæmorrhage whatever, but it now became very free, and although the huge flabby uterus contracted fairly well, simple expression was unsuccessful to expel the secundines, and hand had to be introduced, and each of the four adherent placentæ were manually removed separately; the hæmorrhage being then controlled by a hot antiseptic douche.

There were four distinct and separate placentæ about five to six inches square and four separate bags of membranes, although the second and third placentæ were found united after removal by a band of membrane some four or more inches wide.

The patient ran a slight temperature on second and third days, which intra-uterine douching reduced, and with this exception mother and her three children (two boys and one girl, weighing each about 5 to 6 lb.) are now thriving.

Llewellyn W. Roberts,
M.B., Ch.B. (Melb.), M.R.C.S. (Eng.), L.R.C.P. (Lond.)

Cowra, N.S.W., June 1st, 1905.

[Playfair quotes statistics showing that the relative frequency of the occurrence of quadruplets varies from 1 in over 2,000,000 births in France to 1 in 185,000 in Ireland.]

A CASE OF URTICARIA PIGMENTOSA.

C.S., *æt.* 9 months, male, was brought to the out-patient department of the Royal Alexandra Hospital early in February last. The mother stated that at the age of three months a rash appeared within a few hours over the child's body and head. There was no apparent cause for it. The spots were first of a bright pink, but within two or three weeks the colour changed to a deep brown. There had been no itching, and the child has been in excellent health since birth. For the first few months he had been fed on breast milk, but during the past four months he has been having cow's milk and barley-water in addition, with other scraps of food. The father and mother have always been healthy.

On inspection the child looks very well nourished and healthy. The complexion is somewhat pale. The whole of the body and limbs, scalp, face, palms, and soles are covered with a macular rash, the spots varying in size from $\frac{1}{10}$ to $\frac{1}{3}$ centimetre in diameter. The macules are of a deep brown colour, and are most closely set on the face and back. There are no secondary rashes present. No definite wheals are to be seen, but a birth-mark which was present on the right cheek became deeply pigmented along with the rash. The buccal mucosa is free from spots.

At first the rash was thought to be of syphilitic origin, and mercury was tried without any effect. The diagnosis was first suggested by Dr. W. F. Litchfield and subsequently confirmed by Dr. W. J. Munro, who pointed out that the absence of definite wheals and itching made the case slightly atypical.

The first case of urticaria pigmentosa was described by Nettleship in 1869, and very few have been recorded since. It is a disease peculiar to infants, and treatment has no effect except in so far as it may relieve itching or other subjective symptoms.

DONALD MACMASTER,
M.B., Ch.M. (Syd.), M.R.C.S. (Eng.)
North Sydney.

Hospital Collections.—In connection with the eighth annual hospital appeal made for the Grenfell District Hospital the returns received so far from country districts show that the record collection of last year—£120—will be exceeded. The collections made on Hospital Saturday in aid of the Berrima District Hospital amounted to a total sum of £124.

REVIEWS AND NOTICES OF BOOKS.

DENTAL SURGERY FOR MEDICAL PRACTITIONERS AND STUDENTS OF MEDICINE. By A. W. Barrett, M.R.C.S., L.D.S.E. Fourth edition. London: H. K. Lewis. 1905. Price, 3s 6d.

The author's views upon the etiology, pathology, and treatment of various pathological conditions of the teeth are in many cases so utterly at variance with the views of accepted authorities on dental diseases that one wonders what class of medical practitioner has created a demand for a fourth edition of this book. Three quotations will suffice to show the character of the author's views:—

"Odontome.—If the gum over it be bruised by an upper tooth, the latter may be extracted; and if the odontome be loose, it should be removed." The treatment for odontome is removal. The removal of a useful tooth from the other jaw is unnecessary. The application of the treatment recommended for odontome to general surgery would result in the unnecessary mutilation of many hands and feet.

"If the nerve be exposed by only a small aperture, the wool may be replaced in a few days by a filling of guttapercha or amalgam." One experience of the intense agony almost invariably caused by this treatment would be sufficient for most medical practitioners' dental patients.

"Modern treatment tends rather in the direction of *not* extracting teeth and stumps" (when preparing the mouth for a plate). The teaching of modern dental hygiene is that all roots which cannot be crowned should be removed before a plate is inserted; when left *in situ* they perpetuate a septic condition of the mouth. The medical practitioner or student in search of advice on dental diseases would do well to invest in a recognised text-book on dental surgery. R.F.R.

A MANUAL OF OPERATIVE SURGERY. By H. J. Waring, M.S., M.B. Edinburgh and London: Young J. Pentland. Sydney: Angus & Robertson.

After reading a vast number of books we have formed the original conclusion that the art of writing pure, terse, and clear English is extremely rare. Treves has it to a supreme degree; in fact, it is doubtful if we humdrum doctors have ever realised what a truly great writer of English we have in the discoverer of appendicitis. Watson Cheyne, less brilliant, is also a master of clear and condensed exposition. It cannot, however, be said that Waring is a second Treves. In his attempts to be Tacitean he is too often obscure, while we have come upon several mistakes in simple grammar which, to one of hypercritical mind, would be highly objectionable. After all, in writing for students, the first and last aim should be clearness. Macaulay's cook, that long-suffering lady to whom he read the whole of his history, was doubtless responsible for the lucidity of his style; and, while we do not contend that surgeons should make a practice of reading their books to their cooks, we certainly do consider that no other good qualities make up for a lack of intelligibility.

This manual of surgery, style apart, is, on the whole, a good little book, though it is somewhat lacking in detail, a fault which could probably not be helped in the effort to cram all operations into 645 small pages. There is little contentious matter. Waring has been content in most cases to follow orthodox and commonsense lines. Some of the statements seem to us, however, rather open to criticism, as, for instance, that formalin makes catgut stronger and more tensile. Prince Alfred Hospital experience does certainly not confirm such a result. On the contrary, formalised gut was abandoned there because of its tendency to become brittle. The description of gastro-enterostomy—only the anterior operation is described—falls a long way short of Watson Cheyne. Who that ever read that author's masterly account will forget the "vicious circle" and his lucid directions to avoid so terrible a calamity? Yet Waring barely hints at the vicious circle; he does not name it; to avoid it, one is told to suture the loop of intestine to the stomach "in such a manner that, when the communication has been established, the contents of the stomach will flow into the intestine in a direction corresponding to that of the normal peristaltic movements. This is said to be effected by twisting the intestine half a turn on its long axis." One would ask whether any ordinary mind could make head or tail of so mystic an utterance.

Waring still uses sponges. We had thought that these had long been abandoned.

The MacBurney incision is described for appendectomy. Well and good; but suppose it doesn't give enough room? No hint of this is mentioned, nor of the valvular incision into the rectus sheath.

The sections on hernia and the breast are excellent; and, indeed, much of the book is quite good, though, as we have said, there is a lack of clearness and precision about the descriptions which detracts considerably from its value. C.M.

THE EFFECTS OF TROPICAL LIGHT ON WHITE MEN. By Major Chas. E. Woodruff, M.D., Surgeon, United States Army. New York: 10 West 23rd-street. London: 129 Shaftesbury Avenue, W.C. Rebman & Company. 1905. Price, 10s net.

This work is an expansion of a paper read before the Manila Medical Society in 1904 to prove the correctness of the theory announced by von Schmaedel in 1895 that "skin pigmentation of man was of value for the purpose of excluding the dangerous actinic or short rays of light which destroy living protoplasm." This theory if true gives at once the reason for the evolution of nigresence or blondness, the reason why Europeans have always failed to colonise in the tropics, and why blondes disappear when they migrate from their northern homes; finally, it gives rise to practical rules for the guidance of white men who are compelled to reside in the tropics. The author set about systematic search for data, and in the volume before us he has included the result of the researches, which cover a large area of medical and scientific literature. The work abounds with interesting facts, but we cannot always agree with the author in the conclusions he adduces from them.

After some preliminary chapters on Ether Waves, the action of Ether Waves on Protoplasm, and allied subjects, he gives us a chapter on the "Known Effects of Light on Man." He remarks on the proverbially good health of men who are compelled to work underground in some large cities of the world, and concludes that darkness instead of injuring them has apparently helped them, for they have not been damaged by light rays like the street worker. He remarks further, "that dark houses are not as harmful as the present generation of sanatarians assert, *except* as it is a healthy place for bacteria as well as man." The italics are ours, for if a dark house is a good breeding ground for bacteria, it surely can hardly be called a healthy place for man. Again, he says: "We are the only people who have gone daft on the subject of admitting streams of powerful light into schoolrooms and nurseries—far more than is necessary to see well. We are apt to seat the children so that the light glares right into their faces, and then we wonder why they develop sore eyes. We are now daft on the subject of letting the light stream into the living rooms, and consequently suffer from all kinds of nervous effects wholly unknown to our ancestors, who were careful to keep the blinds closed and the houses darkened." "It is the duty of pedriatrists to find out how much of the curious modern nervousness of children is due to excessive stimulation of the 'light-baths' of the nursery, perambulator, or schoolroom. They will find why so many children come home from school daily with a headache and an attack of 'nerves.'" This is pure assumption on the part of the author; and surely it is not believed that our children would be healthier if they were kept in dark rooms. Another statement, that "one form of the periodic headache called migraine is so often due to excessive light that it was once called *sun pain*, and many sufferers find their sole relief in absolute darkness," we do not believe to represent the fact.

There is no question as to the stimulating effects of light on body metabolism and in important conditions of the blood; but it would appear that in the tropics this stimulus is often excessive, and results in premature exhaustion. A strange fact is the loss of memory and the general neurasthenic state which often overtake residents in the tropics. This is attributed by the author to the excessive stimulus of the sunlight. Many interesting facts are recorded bearing on the question of the influence of light on various morbid processes. In the concluding chapter the author summarises by giving rules for white men in the tropics. These directions refer to the kind of headgear, the best manner of regulating the daily life, in accordance with the heat and light of the day, on the kind and amount of food and drink, etc., which are most useful for residents in the tropics. The work is an exceedingly interesting one, and should prove very useful to those who contemplate living in the tropics, and especially Americans who are likely to settle in the Philippine Islands. G.E.R.

A TEXT-BOOK OF LEGAL MEDICINE AND TOXICOLOGY. Vol II. Edited by Frederick Peterson, M.D., and Walter S. Haines, M.D. Philadelphia, New York and London: W. B. Saunders & Co. 1903. Melbourne: Jas. Little. Price, per part, 25s.

The second volume of this encyclopædic work on the important subject of legal medicine deserves equal praise to that bestowed some months ago upon the first volume when under review. A glance at the list of contributors alone will afford a guarantee of the work being well done. The articles upon "Criminal Malpractice" and the "Medico-Legal Relations of the Röntgen or X-rays" are particularly good, and will afford interesting and instructive reading to practitioners. The chapter upon the laws relating to the insane may be of considerable value to students of law, but it will not, we think, attract the medical practitioner in Australia. The greater portion of the volume is taken up with the question of toxicology, and is a perfect mine of information upon the whole subject. The last chapter deals with the responsibilities of pharmacists and their agents, and is well worthy of perusal. As a whole, the volume is very well got up both as regards printing and illustrations, and the publishers and authors alike are worthy of all praise. S.J.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH JUNE, 1905.

THE ALLEGED INCREASE OF CANCER.

THE preliminary report of the Government Statistician on the vital statistics of New South Wales for the year 1904 has some hopeful features as well as some that are calculated to raise our serious attention. It is satisfactory to know that in this country, in common with all other countries of the world which have adopted a rational method of prevention and treatment for pulmonary tuberculosis, the number of deaths to be attributed to this disease is steadily diminishing. But it is not comforting to learn that, taking the figures used by the Government Statistician, there appears to be an undoubtedly steady increase in the number of deaths arising from cancer (the word cancer is used of course in a wide sense to include all varieties of malignant growths), and that with a decreasing death rate from tuberculosis there is an increase in the number of deaths from malignant disease.

Some suggestions have been offered to explain away similar figures in past years, but the accumulation of evidence would seem to bear out the truth of the statement that there is a real and not only an apparent increase in the deaths from cancer. The more accurate diagnosis of modern times has undoubtedly led to the certification of some cases which perhaps in former years would have been simply registered as cases of exhaustion, etc.; but we are certain that a number of patients die from malignant disease nowadays which are either not recognised as such at all, or not diagnosed with sufficient certainty to enable practitioners to certify the death as due to malignant disease.

The increase in the death rate from cancer necessarily implies an increase in the prevalence of the disease generally, and this is one of the facts which require investigation at the hands of the various cancer research organisations. Efforts are being made to compile statistics which may throw some light upon the conditions of life and environment which appear to determine the development of this insidious form of disease. Hitherto, however, such investigations have not proved of much value. But if the present trend of pathological opinion on the etiology of cancer is correct—that is, if cancer be not a germ disease in the ordinary sense of the term, but one due to some changes in the vital condition and capacities of certain cells—it seems not improbable that some definite connection may be found to exist between the increase of the incidence rate of cancerous disease and the conditions of modern civilised life. The connection may be an obscure one; nevertheless it is apparently true that the death rate from cancer in closely populated and large centres of civilisation is relatively greater than in more sparsely populated districts.

We know that the conditions of life at the present day tend to increase strain and stress upon the nervous system, resulting in a steady increase in the number of cases of nervous and mental disease; and there seems some ground for believing that cancerous disease in some cases is definitely associated with a disordered nervous system.

The Cancer Research Committee are anxious to obtain as many particulars as possible of all cases of cancer, and we are sure that many of our readers will be in the position to give full particulars of the history and environment of patients who have suffered and died from cancerous disease ; and by recording such details, as well as preserving, if possible, specimens and pathological reports on these growths, they will be assisting in the work of unfolding the mysteries which surround this fatal disease.

HOSPITALS AND AMBULANCE BRIGADES.

We have on previous occasions referred to the difficulties which beset hospital committees in raising sufficient funds to enable them to keep the hospitals occupied to a full extent, or even to keep them open at all. This has been especially felt in Queensland, and the Brisbane Hospital, among others, has suffered in the past, and is still suffering considerably, from a lack of support from the general public—to such an extent, indeed, that the Government was compelled to step in and advance money on loan to enable the committee to meet their pressing obligations. The same difficulty has also beset some of the hospitals in Northern Queensland, and, as we mentioned in our last issue, the Government of that State is proposing to introduce a bill to provide a wage tax to raise the necessary funds to support the hospitals.

It would appear, however, that in Queensland, and especially in its northern parts, the hospitals are suffering financially very largely in consequence of the competition between them and the ambulance brigades. It comes as rather a shock to hear that the ambulance brigades are undertaking work that should properly be performed by the skilled medical officers of the hospitals, and that they are not only subsidised by the Government, but are also receiving so large a share of the gifts of the charitable that the hospitals are suffering financially in consequence. There is no question that the partial training of men and women in medical and surgical knowledge has often led to arrogant assumption on the part of the holders of ambulance certificates ; and that the evil is a crying one is evident from the information we have received from time to time of the doings of those persons who are possessed with the proverbial "little knowledge which is a dangerous thing."

The Queensland *Northern Miner* in commenting on this question says: "The hospital at Ravenswood has now been closed for some time, and it is evident that it will remain closed, the public apparently preferring the tinkering of laymen as provided by the Ambulance Brigade to the skilled attention of medical men and trained nurses." We cannot but all admire the excellent services which the ambulance brigades have rendered in their proper sphere of rendering first aid and at once securing medical attention for the sufferers ; but when these ambulance brigades men take upon themselves the work of treating all kinds of surgical ailments without reference to medical men, then they degenerate to the level of the bonesetters and the quacks who flourish on the credulity of the public.

The public hospitals, providing skilled medical and surgical treatment for the suffering poor (is it always only for the suffering poor ?), and the ambulance brigades in large centres, have each their respective spheres of work, but when it comes to their being actually competitors, and the public contributions being diverted from the hospitals to the ambulance brigades which undertake much more than their legitimate duties, then it is time to cry a halt. We hope that such an anomalous state of things as exists in Northern Queensland will soon cease to bring discredit upon both these useful institutions, and we find justification in this hope in the reply of **Mr. Airey**, the Home Secretary, to the committee of the Ravenswood Hospital, showing that he has taken note of the situation.

THE MONTH.

International Congress for Radiology and Ionization.

The first International Congress for the study of radiology and ionization will be held during the present year at Liége, between the 12th and 14th of September (inclusive). The Congress will be divided into two sections:—Physical Section.—1. The Physics of Electrons, including radiations of various kinds. 2. Radioactivity and dependent transformations. The activity of waters and earths. Radioactive deposits. 3. Meteorological and Astronomical Phenomena and their relation to ionization and radioactivity. Biological Section.—The programme governing the work of this section will include an examination of the physiological properties of various radiations and of radioactivity, and will consider their medical value and application. The method of procedure in this section will be determined upon by a special commission presided over by Professors Bouchard and d'Arsonval, members of the " Institut de France and of the Academy of Medicine of Paris. The other members of this commission are: Drs. Béclere, Bergonié, Broca, Charpentier, Charrin, Danysz, and Oudin. Beside this special commission, a general committee composed of men notable in this line of research work, and presided over by M. Henri Becquerel, will examine, classify and approve such reports, papers and notes as may be offered. Intending contributors should forward with the least possible delay the manuscript of any contributions they contemplate making, as delay may make the printing of them impossible. The titles of contributions should be forwarded immediately if possible. The president is Dr. H. Kuborn, Honorary Professor at the University of Liége and President-in-Chief of the Royal Medical Society of Belgium. The general secretary is Dr. J. Daniel, Rue de la Prévote, 1, Brussels, to whom all communications should be addressed.

The Registration of Massage Nurses.

All our readers will agree that some system of registration or supervision is as essential for massage nurses as for other kinds of nurses. A large number of masseuses are being turned out, and unless there is some standard of training insisted upon, persons of insufficient knowledge and experience will only tend to bring this useful method of treatment into disrepute. We believe that such an exposure of massage institutions as was made some time ago in London by the *British Medical Journal* commissioner would not be possible in Sydney; nevertheless, it is necessary that we should have some guarantee that the massage nurse is not only competent from the point of view of knowledge of her work and physical strength to accomplish it, but is also of good moral character. The Australian Trained Nurses' Association is an institution which has now strong support, and is doing good service both in improving the lot of the nurse and the nursing of the sick. We understand that the council of that body has been approached by several massage nurses with a request that they should establish a Massage Nurses' Branch similar to the Midwifery Nurses' Branch. We hope that this matter will receive careful consideration by the council of the Australasian Trained Nurses' Association, and that steps will be taken by that body to establish some standard and to enroll massage nurses in their membership. We learn that an attempt is being made to establish a separate association, to be called the Australian Massage Nurses' Association, but we think such quite unnecessary, and that the registration of nurses engaged in this class of work should be effected by the Australasian Trained Nurses' Association, which has the strong support and sympathy of the medical profession.

The Melbourne University Bacteriological Laboratory.

The report of the work of the University bacteriological laboratory for 1904 shows what a large amount of work is being accomplished at this institution. The staff consists of a lecturer (Dr. Bull) and two demonstrators (Drs. Mackeddie and Summons). For the Board of Public Health 2873 examinations were conducted during the year in connection with the diagnosis of typhoid, tuberculosis, diphtheria, hydatids, cerebro-spinal meningitis, bubonic plague, and other diseases. For the Metropolitan Board of Works two complete examinations of the water supply were made, involving the separate examination of 43 different samples; 36 samples of raw sewage and effluent, collected from different points of the sewerage system and farm, were also examined. For the Agricultural Department, 153 investigations of anthrax, swine fever, and other animal diseases have been made; research work has been done in connection with diseases of apples, potatoes and bees, and pure "starters" have been isolated and supplied to butter factories, with most successful results in the improvement of the quality of the butter produced. For the City Council 346 samples of water were examined, and 30 samples of milk supplied by vendors plying within the city boundaries. Some original research has also been conducted in connection with anthrax and hog cholera, and with a motionless type of typhoid bacillus.

Insanity in Victoria.

Dr. Jones, the Inspector-General of the Insane in Victoria, since his arrival in Melbourne has been actively engaged in examining the various asylums and the provision existing at present for the housing and treatment of the insane. He has furnished a report to the Chief Secretary which has been laid before the Victorian Cabinet and is now being considered by them. It is understood that the suggested alterations and additions to the hospitals for the insane will involve an expenditure of £250,000. The contents of the report have not yet been made public, but it is said that the Government are not likely to sanction the expenditure of so large a sum as that suggested all at once. It has been proposed to Mr. Bent that the Government should pull down the Kew Asylum and dispose of the site of 383 acres and build another hospital elsewhere. This proposal has also been laid before the Cabinet.

Friendly Societies and Hospitals.

A deputation representing the Ryde branch of the Manchester Unity I.O.O.F. recently waited upon the Chief Secretary, Mr. Hogue, to discuss the question as to whether the funds of Friendly Societies can be legally contributed to the support of hospitals. Mr. Hogue expressed the opinion that, under the Friendly Societies Act, these institutions have the power to contribute to the support of hospitals, but suggested that if the deputation wished to get an authoritative pronouncement upon the point they should apply to the law courts for an interpretation of the Act.

An Infectious Diseases Hospital for Hobart.

The question of the provision of an infectious diseases hospital for Hobart has been again brought under the notice of the Tasmanian Government. A deputation, consisting of the Mayor and aldermen of Hobart, waited upon the Premier and pointed out that in the year 1899 £5000 was voted by the Premier for an infectious diseases hospital. Out of that vote £1418 was spent for additional land for the General Hospital, and subsequently £926 was paid for the Wentworth site, so that there was still the sum of £2572 18s of the original sum available for the work. They hoped that the Government would accede to the request of the deputation and get the hospital erected without delay. The Premier pointed out that under the Health Act the Chief Health Officer could call upon the local authorities to provide an infectious diseases hospital, but promised to discuss the matter in Cabinet and to call upon the Chief Health Officer to report upon the whole matter.

Patent Medicine Regulations in New Zealand.

A large meeting of those interested in the drug trade was recently held in Sydney to protest against the new patent medicine regulations which were introduced by Sir Joseph Ward in New Zealand, and which were to come into force on June 1st. The protest has drawn from Sir Joseph Ward the following explanation of the reasons which led to the adoption of these regulations. He stated that there was no desire to interfere with honest trade, but only to safeguard what was good, and to put legitimate restraint upon the sale of noxious compounds intended only for bad purposes. The difficulty has been to secure control of these articles without interfering with the many useful medicines now on the market. As an earnest of his desire in no way to interfere with legitimate trade, Sir Joseph Ward has decided to amend the regulations in the direction of removing the mandatory clauses for depositing formulæ. It will be necessary now for makers to deposit their formulæ only when called upon by the Minister for Public

Health to do so. No maker or seller of *bona fide* medicine need fear the slightest interference, but the power will be retained to control the sale of such medicines as are after careful consideration deemed noxious.

Medical Men and Railway Travelling.

Some correspondence has recently appeared in the Sydney lay press from two country medical practitioners, drawing attention to the serious disabilities under which the action of the Railway Commissioners has placed them. In the course of practice country doctors are often called to urgent cases many miles away from their consulting rooms, and it may be a matter of vital importance that the doctor should arrive as quickly as possible. When residing near a railway line, travelling by light engines may be the quickest method of travel. The Railway Commissioners, however, in reply to a letter received by them from Dr. Watkins, of Katoomba, have stated " that it would be inconvenient to grant permission to travel by light engines." On the face of it this reply would seem to suggest that in the eyes of the Railway Commissioners the convenience of the service was of more importance than the saving of life. We are convinced, however, that such is not the true view of the situation, and we would respectfully request these gentlemen to reconsider this matter and see that facilities are offered for the rapid transit of medical men in cases of emergency. We are convinced that no medical man would unnecessarily make use of such a concession.

The Registration of Still Births.

A Select Committee of the Legislative Council of New South Wales appointed in 1886 reported that the fact " that no provision is made for the registration of the births of any stillborn children offers facilities for the commission of crimes against the lives of young children," and strongly advised the amendment of the law in this direction. The Royal Commission on the birth rate drew attention to the same fact, and also urged the amendment of the law. That this legislation is urgently necessary was made very apparent from the facts of a case which was reported to the Coroner a week or two ago, and some particulars of which are published at page 293 of our present issue. From this case it would appear that certificates of death are given by monthly nurses not only in cases of stillborn children, but even in cases of children who have survived several hours after birth, and undertakers appear quite ready to accept such certificates. Fortunately, the whole matter of registration of births and deaths is at present under the consideration of the State Attorney-General, and we may have every confidence in leaving this matter in the hands of Mr. Wade. We hope before long to hear of the introduction of a bill into Parliament to amend the present method of procedure for the registration of births and deaths in such a way as to prevent what is at present a possible loophole for the commission of crime.

The Prevention of Tuberculosis in Melbourne.

It has all along been recognised that numbers of individuals become infected with tuberculosis from residing in houses previously tenanted by persons who have suffered and died from pulmonary tuberculosis and in which no disinfecting processes have been carried out. This aspect of the warfare against tuberculosis has recently been emphasised by the Melbourne Board of Health, and Dr. Norris, the chairman, has issued a circular setting forth in a practical way the steps which it is proposed to take for rendering premises which have been infected by previous tuberculous tenants safe for future habitation. The process of disinfecting and cleansing of houses is best carried out under municipal supervision, and in every case after the removal of a consumptive patient from one house to another, or after a death in any house from pulmonary tuberculosis, every precaution should be taken as a matter of course. There is no doubt that an organised effort by the municipal councils to eradicate the tubercle bacillus from all premises in which tuberculous patients have lived would result in a great diminution in the number of infected houses and in the possibilities of infecting the healthy individuals.

The Victorian Government, it is reported, are contemplating the appointment of a third inspector to watch over the interests of boarded-out infants. This matter was considered at the last meeting of the Royal Victorian Trained Nurses' Association, and it was decided to recommend the appointment of a qualified trained nurse for this position.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

The usual monthly meeting of the Branch was held at the Royal Society's Rooms, Elizabeth-street North, on May 26th, at 8.15 p.m. Present: Dr. J. L. Beeston (president), in the chair, and about 40 members.

The President announced the nomination of the following gentlemen for membership:—Dr. H. R. Letcher, Cobar; Dr. P. H. Boyden, H.M.S. Prometheus; Dr. H. F. Alsop, Mosman; Dr. R. F. Jones, Samarai.

Dr. Charles MacLaurin wished to ask a question in reference to a circular received from the Mutual Life Insurance Company of New York, in which it was stated that that company was the only one recognised by the New South Wales Branch of the British Medical Association in connection with the Medical Practitioners' Widows and Orphans' Fund, and asked if this statement were in accordance with the facts.

Dr. Hankins, honorary secretary, explained that the Mutual Life Insurance Company of New York was the only company with which they had had any dealings in the matter and which had submitted any terms for insurers in connection with this fund; but there was no objection to any member insuring in any other company which gave as favourable terms.

Dr. G. E. Rennie exhibited a patient showing paralysis of the left spinal accessory, left hypoglossal and motor division of the left fifth cranial nerves; also a patient showing spasm of the right sterno-mastoid, a condition existing from birth. The points of interest in these cases were (1) the distribution of the paralysis and the association of paralysis of spinal accessory, hypoglossal and motor division of the fifth, (2) the position of the head assumed in spasm of the sterno-mastoid, and the absence of defect of movement of the head when one sterno-mastoid is paralysed, and (3) the innervation of the trapezius.

Dr. Hinder read a paper on "Internal Derangement of the Knee Joint." (See page 247.)

Dr. Maitland was pleased to say that he agreed with Dr. Hinder in almost every point raised in his paper. He shared with Dr. Hinder the dread of operating on the knee-joint; but with regard to the technique of the operation, he always used rubber gloves himself and insisted on his assistants doing the same thing, so as not to run any risk at all of sepsis. He also now always had the joint irrigated with normal saline solution during the operation.

Dr. Fiaschi thought that the theory of the detachment of the semilunar cartilages put forward by Dr. Hinder an ingenious one; but on looking over his experience of operations on the knee-joint he did not agree with the note of warning raised by the author of the paper as to the dangers attending operations on this joint. It was necessary, of course, to be very particular about asepsis. He had operated on a large number of cases of disease of the knee-joint, and had never had a case suppurate. He had recently had a singular experience in this connection. A patient under his care in hospital had had some injury to the joint, and on the inner side of the joint, immediately under the skin, a loose body could be felt. Various methods were adopted to fix this, but to no purpose. He accordingly cut down upon it and opened the joint, but could not find it at first. On passing his finger into the joint he recognised that a small piece of the semilunar cartilage was missing. On further examining the back of the joint cavity he felt this small piece of the cartilage lying loose in the joint, and removed it.

Dr. Hinder, in reply to Dr. Maitland, said that he would not enter upon a discussion as to the use of rubber gloves, but he thought that if a surgeon had hit upon a method of operating which gave him every satisfaction he was justified in sticking to it, whether others agreed with him or not. Dr. Fiaschi did not appear to have any particular dread of opening a knee-joint; he himself would repeat what he had already said, and would always to the end of his days have a dread of this operation. Dr. Fiaschi was to be congratulated upon a method of operation which had given him such excellent results.

Dr. Charles MacLaurin read a paper on "A Case of Accidental Hanging." (See page 255.)

Dr Palmer said that so far as his post-mortem experience went he would be inclined to say that the post-mortem appearances of asphyxia were always present, as well as those of cerebral engorgement. He thought that death was probably due to a combination of these two causes.

Dr. Hankins said that it was many years since he had had to do with a case of hanging. He was called to the case of a woman who had tried to hang herself from a bedpost. Her friends finding her very shortly afterwards, cut the body down, but did not loosen the rope round her neck. On his arrival he found her alive, but unconscious, and presenting all the appearances of venous congestion described by Dr. MacLaurin. He at once loosened the rope round the neck, made a large opening in the external jugular vein, and did artificial respiration. The blood began to flow freely, and the patient rapidly recovered, without showing any of the cerebral symptoms exhibited by Dr. MacLaurin's patient. If venesection were performed at all it was necessary to make a large incision so that the blood might flow freely, and to assist the blood flow by artificial respiration. Whether the recovery of his patient was to be attributed to the venesection or to the artificial respiration, or to both, he could not say, but his impression was that in cases of hanging where there was marked venous congestion, free venesection was the correct treatment.

Dr. MacLaurin agreed with Dr. Palmer that asphyxia may be present in cases of this nature, but he thought that asphyxia would not account for such immediate loss of consciousness as these patients seemed to have. He remembered in reading the description of the Tyburn hangings long ago that it was noted in some cases of recovery after hanging the persons had no recollection of anything having happened to them, so that the loss of consciousness must have been very rapid, and, he thought, not due to the asphyxia. He had no doubt that venesection would be an excellent procedure in cases of this nature, but he had not thought of doing it in his case.

Dr. Worrall showed an appendix with diverticula, removed from a woman *æt.* 31, who was operated upon for a left-sided ovarian cyst with axial rotation of the pedicle, in March, 1905. She had passed through a severe attack of peritonitis three weeks previously, and had had attacks of abdominal pain for more than a year. The appendix was removed because of its extraordinary appearance. It was non-adherent, but on its superior surface there were four prominences about the size of very large peas, resembling tubercles. Subsequent examination of the specimen showed these prominences to be diverticula, communicating with the lumen of the appendix, which was in no way strictured. In these pouches the muscularis had been destroyed, allowing the mucosa to bulge through, raising up the serosa. There was thus imminent danger of perforation, besides which such byways afforded favourable ground for bacterial growth from which peritoneal invasion might at any time take place. The practical point, therefore, was that when in the course of an abdominal operation an appendix presenting such an appearance was found it should be removed. As regards etiology, precedent inflammatory processes probably account for such a condition. Lockwood in his monograph on appendicitis does not mention it, nor do any of the year books.

The **President** announced that the meeting of the Branch in July next would be held in Newcastle, and hoped that as many members as possible would go there on that occasion.

Victoria.

The ordinary monthly meeting was held on Wednesday, May 17th; the President (Dr. H. W. Bryant) in the chair.

Correspondence was read from Dr. Crago and the Secretary of the New South Wales Branch of the British Medical Association, enclosing resolutions suggested by the Council of their Branch as a means of bringing about a reconciliation with the 1900 Council of the Victorian Branch. The resolutions were as follow:—

1. The members of the Victorian Branch of the British Medical Association regret the action taken by the Branch in 1900 which led to the retirement of the Council of that date.

2. In the event of the foregoing resolution of regret being accepted as satisfactory by the members of the late Council, the Branch pledges itself to re-elect the members of the 1900 Council, or as many of them as consent to act, it being distinctly understood that the present Council of the Branch will resign in order to allow of that being done.

The President reviewed the negotiations, and announced that the Council, having considered the resolutions, had decided to recommend that they be not passed by the Branch. The first resolution was in meaning exactly that which the Branch had rejected a few months previously.

Dr. **Cuscaden** moved and Dr. **Joske** seconded—"That the recommendation of the Council be approved of."

Dr. **Willis** said that in his opinion it was too much to expect that members should pass a resolution expressing regret at an action which they had taken with their eyes open. He moved—"That the word 'that' be inserted after the word 'regret,' and that the word 'which,' after '1900,' be omitted, so that the first resolution should read: 'The members of the Victorian Branch of the British Medical Association regret that the action taken by the Branch in 1900 led to the retirement of the Council of that date.''

This was seconded by Dr. **Laurie**, and carried unanimously.

On the second resolution being put to the meeting, several members expressed the opinion that that meeting could not pledge the members of the Branch as a whole.

Dr. **Cuscaden** moved, and Dr. **Esler** seconded—"That the second resolution be amended so as to read: 'The Victorian Branch of the British Medical Association approves of the offer of the present Council to resign, so as to facilitate the election of as many of the members of the 1900 Council as may offer themselves for that purpose.'" The amendment was carried unanimously.

Dr. H. W. **Bryant** read "Notes on Two Gynæcological Cases." (See page 263.)

In discussing Dr. Bryant's first case, Dr. **Cuscaden** said that his first thought, while listening to the case, had been of an extra uterine fœtation. He, however, now thought that it was probably a case of cellulitis, following straining of old adhesions. The more one saw of pelvic troubles the more one adopted conservative and expectant treatment. In too many cases the abdomen was opened and tubes and ovaries quite capable of recovery were removed.

Dr. **Vance** thought the cause was probably the extrusion of the contents of a salpingitis. He quoted a case in which he found a mass in Douglas' pouch, and on opening the abdomen within six hours of the onset he found that one tube had discharged a quantity of pus, and the other was full. He removed both tubes, and the patient recovered uneventfully.

Dr. **Fox** quoted a case similar to that of Dr. Bryant in which expectant methods had been followed, and he had been surprised at the perfect mobility recovered after plaster of paris-like hardening.

Dr. **Bryant**, in reply, said that he considered it a case of pelvic peritonitis, not cellulitis. The latter was usually one-sided or posterior, and displaced the uterus. Here, however, there was a general serous effusion, with general tenderness, and a mass to be felt in the lower abdomen, as well as per vaginam. In his opinion it was a case of simple pelvic peritonitis caused by an escape of menses into the pelvic cavity.

Dr. **Cuscaden**, who was to have read "Notes on a Case of Epileptiform Convulsions occurring 14 Days after Parturition," explained that as the case was still under treatment, he wished to postpone his account of it.

Queensland.

A general meeting of the Branch was held on Friday, June 2nd, 1905. There was an attendance of fourteen members, and eight members of the Odontological Society of Queensland were present by invitation of the Branch.

Dr. **Salter** showed a case of some considerable interest, where sessile congenital tumours involved the right half of the scalp and forehead, and in form produced a remarkable mimicry of the convoluted surface of the brain below. Similar growths were to be seen on the back and on the hands and feet of the young man.

Dr. **Love** described the microscopic characters of an excised part of the growth and its resemblances to molluscum fibrosum.

Dr. **Gibson** suggested that in spite of its present hardness it might have been nævoid in origin.

Dr. **Turner** suggested the publishing of photographs of the growth, as it resembled nothing he had heard described or seen pictured.

The minutes of the previous meeting were read and confirmed, and Dr. Turner reported the progress of the work of the sub-committee on dengue. Four new members were announced as elected.

A paper on "Dental Decay and Hygiene" was read by Mr. W. R. Parker, L.D.S. (See page 257.)

Mr. **Eden** agreed that decay was mainly due to errors in diet and consequent want of that exercise which favours the development and maintenance of good teeth. The starting point of caries was generally a fissure in the enamel caused by bad development. It was important to maintain good temporary teeth till the permanent teeth erupted, else the permanent teeth touch their opponents too soon. Having touched, they cease further growth, and a set of undersized teeth, with consequently lessened biting space, is the result.

Dr. **Love** recalled Mr. Godlee's observation in the *British Medical Journal* on the influence of oral sepsis in determining the incidence of appendicitis. Intestinal colic and illnesses diagnosed as appendicitis sometimes disappeared when the teeth were attended to, and there was no doubt that the presence of pus about the gums of children produced intestinal troubles and malnutrition. He had often wondered why dentists had not discovered some filling for teeth more like and allied to the enamel than the usual metallic or porcelain stopping.

Dr. **Brockway** regretted that a past generation had taken no care of its children's teeth. Why oatmeal should have given Scotsmen good teeth he could not understand, as porridge gave no exercise whatever to their teeth. He thought the toothbrush a far from perfect instrument, and considered that thorough washing of the mouth should produce as good results.

Dr. **Roth** had examined the teeth of hundreds of blacks. The Myall blacks, who live outside the influence of civilisation, have perfect teeth, while such blacks as have become "civilised" have not as a rule. The food of the aboriginal child is his mother's milk from birth to sometimes even the sixth or eighth year, grass-seed-food ground roughly between stones and therefore gritty and containing particles of earth, much honey and flesh food. Kaolin, too, is a common article of food. In all aboriginal skulls the line of juncture of the upper and lower set of teeth is a curved line, not straight as in the white skull. He wondered if this were due to the extra grinding or not.

Mr. **Hurworth** remarked that the search for a perfect filling was being pushed forward, and chemical and other investigations would probably soon end in success. He advocated thorough and frequent washing of the teeth. He raised the question as to the reputed beneficial action of limewater in building up good teeth.

Dr. **Gibson** believed that Dr. Wright, of Netley, maintained that milk contained more lime than limewater did. If so, to add limewater to milk was to produce a mixture containing less, not more lime.

Dr. **Wield**, in reply to Dr. Brockway's question, judged that the remarks referred to the oatmeal of a generation past, which was roughly and imperfectly ground. The porridge made from it was often hardly boiled, and sometimes not at all, while the hard oatcakes, in which form it was served at every meal, certainly provided a sufficiency of exercise for the teeth.

Dr. **Halford** regarded dental decay as *the* greatest cause of ill-health. One case of supposed consumption brought to Queensland for change of climate, he believed to have been slow poisoning from necrotic maxillæ. If caries were an infective process, that might explain why the civilised aboriginal lost his teeth. He believed that some cases of puerperal fever were due to the dental caries. He was accustomed to recommend a dessert of almonds and nuts if the other constituents of a meal did not afford sufficient masticating exercise.

Dr. **Salter** said that there was likely to be considerable difference between the action of the lime contained in organic matter and that of the lime suspended in limewater, on the formation of good teeth. He thought heredity had something to do with the development of teeth—else why, of two children brought up under same conditions, should one have good and the other bad teeth?

Dr. **Turner** considered that development of good teeth was not simply a question of sufficient digestion of lime, nor decay essentially a result of civilisation, but rather of acquired bad habit of diet, the teeth being neglected in favour of the stomach. He advocated giving a bone to the teething baby and hard baked or toasted bread to the child. The carbohydrates, and especially sugar, were the evil factors in diet, and the arrowroot biscuit should be barred. In the case of the aboriginal, the hard gritty goods not only exercise but cleanse the teeth. The Hindoos, who live on vegetable food, use to cleanse the teeth a piece of root that frays at the end. Toothbrushes should be made on this principle and used vertically, not horizontally. The common form of toothbrush is not efficient.

Mr. **Parker**, in replying, advocated a form of brush with wide interstices between the rows of bristles as more efficient than the form in common use.

South Australia.

The usual monthly meeting was held at the University at 8 p.m. on Thursday, May 23rd. Dr. C. W. Hamilton presided over an attendance of 25 members and two visitors.

Minutes of the last meeting were read and signed.

Exhibits were shown by Drs. **Evans** and **Gunson**.

Letter read from manager of *A.M. Gazette.*

The Council reported that they advised that the scheme for a provident or annuity fund be referred to the Medical Benevolent Association of South Australia, with which it might possibly be amalgamated. Carried.

The discussion on "Tetanus" was continued by papers read by Drs. **Swift** and W. J. **Hayward**.

Dr. H. S. **Newland** remarked that his own experience of tetanus was not very extensive. He had only had one case of his own, but had seen several others at various stages of the disease. His own case occurred while he was senior resident surgeon at the Poplar Hospital. The wound was on the lower extremity; the incubation period was long (over ten days)), and the disease ran a mild course. He had seen several cases of tetanus while a resident at the London Hospital. The first was a youth who had had a fall from his bicycle and had grazed the skin over the left malar bone. He was sent to Dr. Henry Head's out-patient clinic as a case of facial paralysis. That astute neurologist recognised the case as one of head tetanus, and gave a bad prognosis, which was verified. In the second case intra-cerebral injection of antitoxin was practised. The patient died, and at the post-mortem the serum was found to form a cyst in each frontal lobe. A third case died while chloroform was being administered prior to intra-cerebral injection of antitoxin. He mentioned other cases which had terminated favourably and otherwise. The latter included a case in which the infection had occurred through a breaking gumma on the knee He urged the importance of the early recognition of the symptoms of tetanus if any great reduction in the mortality was to be effected by antitoxin. If any good was to be effected, the significance of a stiff neck or jaw or a facial palsy must be recognised early. These early symptoms were the only evidence of the stealthy march which the toxin was pursuing along the axis cylinders. Once the neurotropic poison had a grip of the motor nerve cells, all the present evidence showed that it was most difficult to free the cells from its sinister embrace. The nerve cells took up the toxin as bacteria take up aniline dyes. It was this property of the toxin of being fixed by the nerve cell that rendered the antitoxin treatment of tetanus, in contra-distinction to diphtheria, so unsatisfactory. When the first spasm has occurred and antitoxin is injected, it is analogous to shutting the stable door after the escape of the horse. He was strongly of opinion that in suspicious cases of stiff neck, stiff jaw and facial palsy, antitoxin should be injected in large doses and early. In some cases he would go further still. Where the wound was recent and polluted by garden earth, manure, or street refuse, he would inject antitoxin as a precautionary measure. At the worst, a rash and a painful synovitis might follow the injection. In laying down the indications for treatment he would divide the cases into three classes:—1. *Cases of recent injury, in which tetanus may possibly supervene.* In these the wound should be cleansed with strong antiseptics or cauterised. Drainage should be employed, and the wound should not be tightly sutured, for the tetanus bacillus breeds best at the bottom of a deep, penetrating wound. It is an aërobic organism, and fresh air is inimical to it; 15 to 20 c.c. of antitetanic serum should be injected all round the wound, provided the situation allows of it. The patient should be seen daily. 2. *Cases which present a recent injury, a suppurating wound or a recently healed wound, accompanied by trismus, stiff neck, or facial palsy.* The wound, when on the trunk or when situated on the extremities above the level of the fingers or toes, should be excised if possible and cauterised. Should the injury be situated on the fingers or toes, amputation should be performed. In a case where the wound has already healed, the incubation period is likely to have been long, and the case will probably terminate favourably. It would, however, be safer to excise the recent scar, because while the tetanus and pyogenic organisms almost always exist in a wound together, the association may not be invariable. In that class of case 5 to 10 c.c. of serum should be injected around the area which has been excised. Possibly 10 to 20 c.c. should be injected about adjacent nerve trunks. For instance, where the wound was situated on the hand, the injections should be made about the muscular, spiral, the median and the ulnar nerves. In the leg the injections should be administered into the sciatic, anterior crural and obturator nerves. In addition to the intra or peri-neural injections, 15 to 20 c.c. should be injected by lumbar puncture or by intra-cerebral puncture. Neither of these operations presented any technical difficulty. The injections might be repeated if necessary. Wallace and Sargent reported four cases treated by intra-thecal injections. The incubation period was short in all, but three recovered. Animals in the early stages could be easily cured by the intra-cerebral injection of small doses of antitoxin, and man himself had been successfully treated. 3. *Cases in which the spasms have become general, and, consequently, the disease well established.* In this group the outlook was unfavourable when the incubation period had been short. Similar treatment to that used in group 2 should be employed and vigorously carried out. Intra-thecal injection, owing to the spasms, might not be easy, and chloroform might be necessary. Its administration should be preceded by a hypodermic injection of morphia to allay mental anxiety. It was in this class of case that the intra-cerebral injection of antitoxin might find a place. Experiments on animals certainly supported its employment. The operation on man as carried out was follows:—A line was drawn from the external angular process of the frontal bone on each side to the point where a vertical line joining the two external auditory meati crossed the sagittal suture. This line was bisected. At that spot a short incision was made down to the bone. The bone was perforated by a drill. A blunt hypodermic needle was thrust into the frontal lobe and 2½ c.c. of a concentrated serum was very slowly injected on each side. Where the administration of sufficient nourishment was impossible, Humphry had suggested that gastrostomy might be performed. There was no record of this ever having been done, and the proposal had a rather heroic ring about it.

Dr. Reissmann remarked that the treatment of tetanus by antitoxin had been, so far as recorded cases showed, sadly disappointing. None the less, so prominently did the experimental laboratory facts stand out in favour of tetanus antitoxin being a great and specific remedy for tetanus, that they dared not abandon the method. Tetanus was usually called a toxæmic disease. That was scarcely correct, for the poison was not found in the blood but in nervous structures. It had been demonstrated more than once by different observers that the tetanus poison was not carried from the seat of infection by the lymphatics to the general circulation, but it was absorbed by the peripheral nerves, and it was carried along the axis cylinders to the spinal cord, and so to the central nervous system. If tetanus toxin be injected into the hind leg of an animal the spread of the poison to the medulla could be prevented by section of the spinal cord. This could not happen if the poison were carried in the general circulation. The inoculation period was longer in proportion to the size of the animal, and therefore also in proportion to the length of the nerve. It was 8 to 12 hours in a mouse, 13 to 18 hours in a guineapig, 18 to 36 hours in a rabbit, a minimum of 4 days in a man, and 5 days in a horse. When an animal had died from tetanus, the toxin was found in the brain and spinal cord and in the nerves leading from the seat of infection, but very little, if any, could be discovered in other parts. If tetanus toxin were mixed with an emulsion of brain substance, the mixture was innocuous, and did not produce tetanus when injected into animals. As Ehrlich would put it, the tetanus toxin combined with the side-chains of cerebral cells, and having thus combined the toxin was locked there, and it became innocuous. When the first symptoms of tetanus appeared, the poison had already reached the cells of the spinal cord. It was established, then, that tetanus poison travelled along the axis cylinders of nerves to the spinal cord and brain. It was probable that tetanus antitoxin travelled by the same route. But whether that were so or not, it was certainly desirable that the antitoxin should find its way as soon as possible to the place where the toxin was, or, better still, to those parts of the nervous system to which the poison had not yet extended. It was for this reason that the subdural injection of antitoxin was sometimes resorted to. Trephining was one of the oldest of recorded operations. It was performed by Hippocrates in 460 B.C., and in 1550 Ambroise Paré successfully trephined M. de Pienne, who had sustained a depressed fracture of the skull by a stone shot from a cannon. In spite of newer methods and a vastly improved technique, he supposed few of them regarded trephining for the subdural injection of antitoxin as a minor operation. And when it had to be repeated several times, as should be the case for the administration of sufficient tetanus antitoxin, there was some disadvantage in the method. The same end might be attained if the antitoxic serum be administered by lumbar puncture. This little operation required no anæsthetic; it was perfectly easy, and if reasonable precautions were taken it should be perfectly safe. The administration of tetanus antitoxin by lumbar puncture had much to commend it: (1) The operation was simple; (2) it required no anæsthetic; (3) the antitoxin was injected at the site where it found ready access to the whole of the spinal and cerebral nervous system, *i.e.*, to the parts where it was actually required; it was therefore preferable to subcutaneous or even intravenous injections; (4) if often repeated, a very large quantity of antitoxin could be injected. Like most antitoxic sera, that serum was perfectly harmless, however great the dose administered, and it would be safer to err on the side of giving too much. He had not tried the method, as he had not had an opportunity, but he should certainly do so if he should meet with a suitable case.

Seven other speakers took part in the debate. The writer of the paper (Dr. C. H. Souter) was unable to be present to reply at the close of a long and interesting discussion.

West Australia.

An ordinary meeting was held in Perth on May 17th. Drs. McKell and Ambrose were elected members.

Specimens were shown by Dr. Randell of vaginal casts resulting from the use of "orange lily."

Dr. Thompson showed (1) a sarcoma of the femur of a young aboriginal resulting from a blow received only eight weeks previous to the operation; (2) sarcoma of the kidney from a man aged 50; (3) portion of small intestine, showing a typhoid ulcer which had perforated, been sutured, and healed (the patient died after healing had taken place); (4) stenosis of the aorta; (6) vegetations of aortic valves.

Dr. Blackburn showed microscopic specimens of (1) chronic cystic mastitis, (2) very early scirrhus of the mamma, (3) bacillus obtained from the membrane of a throat, not being the Klebs-Loffler bacillus.

Papers were read by Dr. Trethowan on (1) "A Case of Bullet Wound of the Abdomen with Nine Perforations of the Bowels: Operation—Recovery." (2) "A Case of Typhoid Perforation: Operation—Recovery."

Dr. Tratman read a paper on "Motor Cars."

A discussion followed the papers.

REPORTS OF OTHER SOCIETIES.

Medical Society of Victoria.

The June meeting of the above Society was held on Wednesday, 7th inst., in the hall; the President (Dr. Jeffries Wood) in the chair.

Dr. W. Moore showed a man, aged 67, on whom he had operated three times for epithelioma of the lower lip. At the third operation he was compelled to remove a large piece of the anterior portion of the lower jaw. He exhibited the patient to show how little discomfort was caused. He had also performed suprapubic prostatectomy at the same time as the first operation on the lip with excellent results.

Dr. J. E. Nihill exhibited a woman, aged 30, who was a typical example of what Dr. W. Hale White, in a discussion at the Clinical Society of London on March 10th last, called acute rheumatoid arthritis. Dr. Nihill drew special attention to the distribution, which was markedly symmetrical, and affected the proximal phalangeal joints, the wrist, knees, etc. In his case the spine was not affected. The pyrexia was important, and the tachycardia out of proportion to the pyrexia. Also, he laid stress, from a diagnostic point of view, on the sweating confined to the hands and feet, the anæmia, slight pigmentation in places, and the absence of any cardiac involvement. The great danger at first was in confusing it with acute rheumatism. Radiographic examination in this case showed that the fusiform swelling of the phalangeal joints was entirely due to swelling of the synovial membrane of the soft parts round the joints.

Dr. R. A. Stirling showed a boy, on whom he had performed gastro-enterostomy. The condition had been one of pyloric stenosis, with great gastric distension lasting for three years. The boy had gained four stone in weight since the operation, and had no untoward symptoms whatever. In discussing this case, Dr. J. F. Wilkinson said that he had seen him before operation, and that he had got him up to the University to demonstrate the use of a test breakfast. This was given, including only 10 ounces of fluid. On attempting to draw it off several pints were obtained, almost flooding the laboratory. The fluid drawn off was intensely acid, with great excess of free hydrochloric acid. He had not at first recognised the boy in his present condition.

Dr. J. F. Mackeddie read notes on "Two Cases Simulating Typhoid Fever," with special reference to the value of bacteriological and cytological methods of diagnosis. The two cases were respectively acute disseminated miliary tuberculosis and subphrenic abscess. In the former case the history seemed typical of typhoid fever, but throughout the Widal test was negative. This was discounted when about the third week there was a slight hæmorrhage from the bowel, and a "slough" was passed. The "slough," however, consisted merely of a mucous mass. Soon after this a few crepitations were detected at both bases, which were put down to œdema. This condition gradually extended over the whole of the lungs. Post-mortem there were found miliary tubercles throughout the lungs, meninges (though the patient had been conscious up to two hours of death), and other organs. There were no ulcers in the small intestines. There was one healing ulcer in the colon, the probable origin of the hæmorrhage and so-called slough. In this case the leucocyte count had been of no value, as in both typhoid fever and tuberculosis there is as a rule leucopenia.

Dr. Nihill said that as the Widal reaction was seldom obtainable until the end of the second week, and sometimes not until later, it was very important that the older methods of diagnosis should not be neglected.

Dr. A. V. M. Anderson said that in his experience the leucocyte count had been most valuable. In no case of straight-out typhoid fever had he found a leucocyte count of above 10,000. A negative Widal test was often an incentive to a more careful examination of the patient.

Dr. Maudsley sounded a note of warning with regard to being too certain that a case with a leucocyte count above 10,000 was not one of typhoid fever with some complication, *e.g.*, pneumonia, etc. The danger then was to overlook the typhoid condition and look upon the complication as the main factor.

Dr. J. **Ramsay**, of Launceston, read a most comprehensive paper on "Prostatectomy." He had seen Freyer perform several of his suprapubic operations, and Wood, of Baltimore, perform several of his by the perineal route. He described the latter operation, and considered it the operation of election in the smaller hard fibrous prostates and in early cases of the elastic form of enlarged prostate where operation was necessary, reserving the suprapubic operation for the large elastic ones. He described five cases in which he had performed the perineal operation with excellent results. He enumerated in detail the advantages and disadvantages of the two methods.

Mr. F. D. **Bird** spoke in favour of the suprapubic route, which in suitable cases he considered an excellent operation. In his last case only three minutes elapsed from the time of taking the scalpel into his hand to the removal of the prostate. It also gave one the advantage of a view of the bladder and a thorough examination of it for the presence of a calculus, etc. He also preferred suprapubic drainage to that through the perinæum.

Mr. G. A. **Syme** also advocated the suprapubic route when the prostate was to be removed. As long ago as July, 1897, he had advocated the total extirpation of the prostate in suitable cases, but now he advised it in fewer cases than formerly. He was glad to hear from Dr. Ramsay that, as he had long suspected, Freyer selected his cases most carefully. He was surprised to hear the perineal route preferred on the ground that the enucleation was done more by sight than in the suprapubic method. It was quite possible to pull the prostate up into the wound in the latter operation, if necessary, and there was no risk of wounding the rectum, as had occurred in several of Woods' cases and in one of Dr. Ramsay's.

Dr. R. A. **Stirling** also preferred the suprapubic operation in most cases, but had performed the perineal one in two cases of emergency. He thought stricture less likely after the suprapubic.

Mr. **Hamilton Russell** considered that in Freyer's series of cases there were two operations not well differentiated by him. One was practically merely a myomectomy, and the other a total enucleation, corresponding respectively to a myomectomy and a hysterectomy in gynæcological practice.

Owing to the lateness of the hour the discussion was considerably curtailed.

Medical Defence Association of South Australia.

The fifth annual meeting was held at the University, Adelaide, on Thursday, December 8th, 1904.

Present: Dr. Swift (president, in the chair), and Drs. Hayward, Hone, Gunson, Bonnin, Good, Sweetapple, Lendon, A. E. Wigg, Gregerson, Benham, A. A. Hamilton, Evans, and Cavenagh-Mainwaring.

Apologies were read from Drs. C. W. Hamilton, B. Poulton, E. W. Morris, and Henderson.

The minutes of the last meeting were read and confirmed.

The annual report and the balance-sheet were adopted.

ANNUAL REPORT.

The Council of the South Australian Medical Defence Association have much pleasure in presenting to the members their fifth annual report.

The Council are gratified to note the increased frequency with which members are consulting them before committing themselves to actions which might affect the medical community as a whole, and hope that in cases of doubt they will continue to do so.

At the same time they regret to record that the number of members is considerably lower than it should be, and again draws attention to the importance of unity amongst the profession as a means of obtaining their just rights, and urges all medical men to enrol themselves as members. They would also be glad if members would evince more interest in the election of officers, and relieve the Council of the responsibility of always supplying the nominations.

It is with deep regret that we have to chronicle the death of one of our members, Dr. Thyne, of Millicent, and the Council herewith desire to express their sympathy with the widow in her sad bereavement.

Fifty-seven subscriptions have been received, as against 58 last year, but of these several are new, and the Council hope that members will not allow their subscriptions to lapse, but will make good the arrears.

Ten meetings of the Council have been held during the year, and many important matters have come before the Council for decision. An attempt was made to recover fees from the Vaccination Office for practitioners who had neglected to send in their returns by the date fixed by the regulations of the Vaccination Act, but after several interviews with the responsible officers the request was refused. A subsequent consultation with the legal adviser of the Association showed that we had no chance in a legal action, so the Association would advise its members to be careful to comply with the regulations in future.

After a highly satisfactory interview with Mr. Gray, of the State Children's Department, satisfactory terms were arrived at for medical men who hold appointments under the department, and the Council were pleased with the consideration and impartial hearing they obtained from the head of that department.

Applications for recognition by two medical benefit lodges were received by the Council, but in neither case were the applications considered, and the Council would like again to point out that in their opinion such institutions are contrary to the best interests of the profession.

The Council was approached by the St. John's Ambulance Association and asked if they had any objections to medical men giving a course of lectures without remuneration. After a conference, however, it was decided that the Association were not justified in recommending any reduction in fees for private classes, but that in cases of institutions and large factories, which really could not afford to pay, no objection would be raised to the lecturer taking the class at a reduced rate were he so minded, provided that the Association would ascertain that the fees really could not be paid.

The question of the age at which members should cease to belong to a juvenile lodge was discussed, and the Council decided that the age of 18 was quite high enough, and that it should certainly not be raised to 21 as suggested by some lodges.

An amended form of entrance for members of the I.O.O.F. was discussed, in which the applicant had to sign no declaration of his wife's previous state of health, and yet was eligible to be placed on the family list. The injustice of this was pointed out to the secretary, and as a consequence a promise obtained that a more satisfactory form should be drawn up and presented to the Grand Lodge for their approval.

The advisability of the formation of a branch of the A.N.A. at Port Adelaide came before the Council, and as a consequence a meeting was arranged with delegates from that association, at which the whole subject was thoroughly discussed, but owing to the approach of the annual meeting it was thought best that such an important matter should be discussed and decided by a general meeting of the Association.

With reference to attendance on the destitute poor after 6 p.m., the chairman of the D.B.O. (Mr. Atkinson) at an interview stated that provision is made for such cases, and authorised us to say that in cases of real emergency the services of Dr. Morris can be obtained per telephone on the guarantee of any responsible person, and that if the doctor consulted has any difficulty, the messenger should be sent to the Destitute Asylum, from where the doctor may be summoned, thus relieving the consultant from all responsibility.

BALANCE-SHEET.

Cr.	£	s.	d.
Balance in Savings Bank, Dec., 1903	259	2	11
Interest	8	4	0
Fifty-seven subscriptions	59	17	0
Four arrears	4	4	0
	£331	7	11

Dr.	£	s.	d.
Printing	2	11	0
Legal expenses	6	11	0
Gratuity to porter	0	5	0
Exchange on cheques	0	1	6
Stamps, etc.	2	6	6
Balance in bank	319	12	11
	£331	7	11

November 29, 1904. W. T. HAYWARD,
Hon. Treasurer.

The question of reducing the annual subscription was considered, and referred for consideration by the Council during the year, to be brought up again at the next annual meeting.

The following office-bearers for 1905 were elected unopposed:—President, Dr. Swift; treasurer, Dr. W. T. Hayward; auditor, Dr. T. W. Corbin; committee, Drs. Poulton and Jay; secretary, Dr. Cavenagh-Mainwaring.

A request from the Council of the A.N.A. for the Association to consider the question of the formation of a benefit branch of that lodge at Port Adelaide was then put before the meeting and discussed.

The Council reported that they had interviewed representatives of the South Australian Branch of that body, and had discussed the matter fully with them. As a result of the interview they were satisfied that the A.N.A. in this State had always dealt fairly with the medical profession, and that there was no likelihood of their doing otherwise, at all events as far as they could see at present. A promise had been given that members intending to form the branch would consent not to place on the list of any of our members who accepted office at the Port any person in receipt of more than £200 a year.

After a full discussion it was resolved—"That the Association should advise its Port Adelaide and Semaphore members that they could see no objections to their accepting office, provided that no member should be eligible for medical advice who was in receipt of more than £200 per annum."

The question of the growing abuse of the public medical and surgical charities of Adelaide was then fully considered, and the Council were requested to communicate with the managing bodies of the various institutions, and to see if some arrangements could not be made to minimise the evil.

Dr. GUNSON pointed out that owing to the decisions of the Council being published only once a year a certain amount of uncertainty existed with regard to them; and at his suggestion it was resolved that a quarterly record of the transactions be sent to the *A.M.G.* for publication.

The question of industrial insurance and the acceptance of a lower rate for examinations in such cases was considered, and referred to the Council for consideration.

COUNCIL MEETING.

The first meeting of the Council was held at Dr. Swift's on Friday, February 10th, 1905. Present: Dr. Swift (president, in the chair), and Drs. Poulton, Jay, Gregerson, Hayward and Cavenagh-Mainwaring.

The SECRETARY reported that he had replied to the Australian Natives' Association as directed at the general meeting.

The secretary was directed to see the secretary of the Queen's Home and arrange a meeting to discuss the question of its abuse with the board of management of that institution.

A letter was read from Dr. Poulton on the abuse of the Adelaide Hospital as a charity, and after discussion it was resolved that Dr. Hayward be asked to bring the matter up at the Hospital Board, and that Dr. Lendon be asked to bring the same matter before the Board of the Children's Hospital.

The question of remuneration for examinations in life assurance cases was discussed, and deferred pending further inquiries from the officials of the companies.

Drs. H. H. Russell, D. T. Harbison, and J. H. Evans were elected members of the Association.

The second meeting of the Council was held at Dr. Swift's on Tuesday, March 21st, at 8.30 p.m. Present: Dr. Swift (president, in the chair), and Drs. W. T. Hayward, Hone, Jay, Gregerson, Poulton, and Cavenagh-Mainwaring.

The SECRETARY reported that he had interviewed the secretary of the Queen's Home, and that the committee of that institution were anxious to meet the Association and to arrange matters so that unsuitable cases should not be admitted.

The application form of that institution was discussed, and alterations suggested. The president, treasurer and secretary were appointed a sub-committee for the interview.

Dr. HAYWARD reported that he had brought up the question of the abuse of the Adelaide Hospital as directed, and that a sub-committee had been formed to investigate the matter thoroughly.

The result of the interviews with the insurance companies was reported, and it appeared that except in doubtful cases the majority of low insurances were effected without obtaining the opinion of a medical man. Consequently the Council adhered to their opinion that the minimum fee for such examinations should be £1 1s.

Dr. SWIFT reported that consequent on a letter from Dr. T. W. Corbin, he had intervieed the Acting-P.M.G. with regard to the retention of the hours of consultation of medical men in the telephone exchange list. He had been advised to communicate with the Federal P.M.G., though he did not think there was any chance of them being retained.

The secretary was directed to inform those concerned that, in the opinion of the Council, it was not advisable to pay for the insertion of the hours, as it savoured too much of advertisement.

The third meeting of the Council was held at Dr. Swift's on Thursday, April 19th, at 8.30 p.m. Present: Dr. Swift (president, in the chair), and Drs. Hayward, Hone, Jay, and Cavenagh-Mainwaring.

The sub-committee reported the result of the interview with the Queen's Home, and stated that the deputation had been met in a friendly spirit, and that the alterations in the application form suggested at the last meeting had been accepted almost *in toto*. At the same time they had pointed out how frequently medical men were themselves to blame in recommending unsuitable cases for admission, thus increasing the difficulties of remedying such abuse.

Resolved—"That the attention of the profession be strongly drawn to this truth, which practically ties the hands of the Council in dealing with all such matters, and that medical men be urged to fully satisfy themselves that applicants are fit objects of charity before giving such recommendations."

On a question of the propriety of a medical man starting practice in a district where he has just finished a term of *locum tenens*, the Council considered that in large districts where there were already several medical men practising he was at liberty to do so, provided that there was an opening for another medical man, and that no stipulation that he should not do so was made prior to his acceptance of the position.

Western Medical Association.

The annual meeting of the above Association was held at Wellington on May 31st. Present—Dr. Machattie (president) in the chair, Dr. Brooke Moore (hon. secretary and treasurer), Drs. Howse, Burkitt, Wilson, Sturgess, Rygate, Cribb, and Dr. Arthur, M.L.A., visitor.

Election of officers was proceeded with. Dr. Burkitt was elected president for the ensuing year; Dr. Howse, vice-president; Dr. Cribb, hon. secretary and treasurer.

A paper on "Drugs in the Treatment of Disease" was read by Dr. Sturgess, of Wellington, and discussed by all present.

Dr. **Howse** followed with a paper on "War Surgery," discussed by Drs. Machattie, Brooke-Moore, Burkitt, and Cribb.

After lunch the **Past President**, on behalf of the Council, moved a series of resolutions on hospital abuse, and the working of the new fund established for widows and orphans of medical men. These were carried unanimously.

1. Resolved—"That the question of hospital abuse calls for urgent consideration on the part of the medical profession throughout the State."

2. Resolved—"That hospitals supported by voluntary contributions and Government subsidy are intended for the poor and destitute, and the use of such institutions by those able to pay for attendance is a violation of the original intention for which they are maintained."

3. Resolved—"That in view of resolution No. 2 and the gratuitous services of the profession to these institutions, the admission of patients other than the destitute poor, or those desirous of paying for board and lodging, is contrary to the true spirit of hospital administration, and should be discountenanced by the profession."

4. Resolved—"That the foregoing resolutions be forwarded to the British Medical Association, the Newcastle Medical Society, Eastern and Western Suburban Associations, the Border Medical Association, and any other Medical Association in the State of New South Wales."

5. Resolved—"That in the opinion of the members of this Association the scheme of insurance lately established in the interests of the New South Wales Medical Practitioners' Widows and Orphans' Fund demands their disapproval in so far as it appeals to our patients, the laiety generally, and the canvassing agent in particular, for support in such a way as to cause the profession to appear as applicants for charity, and which is contrary to the traditions and high ideals of the medical profession."

6. Resolved—"That the Society disapproves of the action of the New South Wales Medical Practitioners' Widows and Orphans' Fund Association confining the operations of members desirous of insuring in the fund to any one particular office."

Dr. **Cribb** read a paper on "The Treatment of Uric Acid Conditions by Haig's Diet." Discussed by Dr. Arthur, Dr. Machattie, and Dr. Sturgess.

Dr. **Howse** then opened a discussion on "Renal Calculus."

The **President** followed with an account of two nephrectomies and two nephrotomies performed by himself, with specimens. Drs. Machattie and Brooke-Moore also took part.

This concluded the business for the day.

In the evening a dinner was given by the Wellington members to the Society. Dr. **Howse** proposed the health of the retiring president, Dr. Machattie, in cordial terms. The health was drunk with much enthusiasm and musical honours.

The next meeting will be held in Bathurst some time in November.

The transactions of this meeting, including papers, discussions, and resolutions, are in preparation for the press, and will be issued to members when ready.

Royal Alexandra Hospital for Children, Sydney.—The ninth clinical afternoon was held at Valentine-lane on Friday, May 19th. Dr. W. **Chisholm** presided. Dr. **Read** showed a boy aged 6 years with keratosis pilaris. Dr. **Litchfield** showed a boy aged 12 years with ichthyosis. Dr. **Sheldon** exhibited a boy aged 8 years with hemiatrophy of the tongue; there was no other demonstrable lesion in the case. He also showed a girl aged 15 months suffering from condylomata that had resisted vigorous mercurial treatment for some months. Calomel sublimation locally applied was recommended by one gentleman present, while another advocated painting the excrescences with a solution of silver nitrate. The Chairman said he had known similar cases to improve by the simple expedient of keeping the opposing surfaces separated by a piece of lint. Dr. **Wade** raised the question whether the occurrence of condylomata late in childhood was not an evidence of the syphilis being acquired. Dr. **Littlejohn** exhibited a child with spastic hemiplegia. Under the influence of mercury and potassium iodide, rapid and marked improvement had taken place.

A New Morgue for Sydney.—In view of the representations made by the Health Board on the matter, the Government has decided to place a sum of £3000 on the estimates to provide for the erection of a new morgue. It is intended that the new structure shall be designed upon the system in force in Paris.

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

Prostatectomy.

The importance at present attached to the prostate and its treatment may be gathered from the fact that the April number of the *Annals of Surgery* contains no less than 11 papers on it.

P. M. Pilcher deals with the "Pathology and Etiology of Obstructive Hypertrophy and Atrophy of the Gland," and confines his observations chiefly to 23 cases operated upon by L. M. Pilcher at the Methodist Episcopal Hospital. He gives the following *resumé*:—1. Pathologically there are three types of prostates causing urinary obstruction—(*a*) the large soft type, (*b*) the hard small contracted type, and (*c*) the mixed type. 2. Infection does not influence the variety of the pathological change. 3. The contracted form of prostate is not a secondary stage of the large, soft type of hypertrophied prostate, but is distinct from it. 4. In many cases of hypertrophy of the prostate there is present a true muscular hypertrophy. 5. In some of the atrophic cases the glandular elements are relatively diminished and the muscular elements relatively increased. 6. Gonorrhœa is not an important etiological factor in the production of this disease, and there is no necessity for assuming it to be. 7. The theory of obstruction to the ducts causing passive dilatation of the glandular elements, as advanced by Ciechanowski and Crandon, does not satisfactorily explain the pathological findings. 8. Hypertrophy of the prostate results from glandular overgrowth, influenced by the degenerative changes of old age and other agents, which tend to produce the formation of fibrous connective tissue in an actively functionating gland.

Thorndike deals with the question, "Has the catheter a place in the treatment of chronic prostatic enlargement?" and answers it in the affirmative. He firmly believes that while many of the miserable men who were formerly dragging out a painful existence with the aid of the catheter, because there was no alternative to offer them, are now well and happy after a properly performed prostatectomy or other less radical procedure; others who were then made comfortable and content by the daily use of the catheter may still be made so by its aid. The fact that we have several new strings to our bow does not mean that the old one is worthless and must be thrown away.

Chetwood has an article on "Prostatism without Enlargement of the Prostate." The particular train of symptoms embraced in the title consists of urgency and frequency of urination, pain during and after the act, and partial or complete retention of urine. This condition is best expressed under the title of "Contracture of the Neck of the Bladder," which is in substance a fibroid stenosis of the vesical orifice. The method of treatment adopted in 36 cases—a tabulated list of which is given—was galvano-prostatomy through a perineal opening. The galvano-cautery incision is safe, bloodless, and effective. The perineal opening is a means of exploration as well as of drainage.

F. S. Watson deals with "Some Anatomical Points connected with the Performance of Prostatectomy." He pays tribute to Dr. Gouley, of New York, who holds a peculiarly important position in the history of the evolution of the operative treatment of prostatic hypertrophy. Gouley described the operation of perineal total prostatectomy in a publication in 1873. Gouley's operation is that of rapid finger enucleation, done through the sides of the prostatic urethra by the forefinger tip introduced into the latter through an ordinary external perineal urethrotomy incision. The author learnt it from Gouley in 1884, and has practised it since 1889. In a paper published 17 years ago the author arrived at the following conclusions, which he has not seen reason to alter:—1. That perineal prostatectomy would have a much less mortality than catheter treatment in all classes of persons. 2. That in the large majority of cases the prostate was readily accessible and easily to be removed through the perineum. 3. That in a minority of cases it was not thus accessible, but was readily so through the suprapubic route. 4. That the mortality of the perineal prostatectomy was less than that of the suprapubic operation; that the former therefore became, in all cases in which it was applicable, the operation of choice; and that the best way to determine whether any individual case was or was not suitable for the perineal operation was to make a digital exploration of the actual conditions present through the posterior urethra by means of an ordinary external perineal urethrotomy incision as the first step of the operation.

Fuller discusses "The question of priority in the adoption of the method of total enucleation, suprapubically, of the hypertrophied prostate." He claims to have devised and first practised the operation in 1894 and to have published it in 1895, while Freyer first performed it in 1900, having been told of it by Dr. Guiteras, a friend of Fuller's, who had himself performed it, with a slight modification in the method of applying pressure from below. The author claims to have performed a very large number of prostatectomies during the past 11 years, with a mortality of 4 per cent. in private cases and from 1½ to 2½ per cent. higher in charity cases. He publishes a letter from Dr. Guiteras substantiating his statement.

Lilienthal, from an experience of 31 cases operated upon in the Mount Sinai Hospital by Wiener and himself, thinks "the treatment of prostatic hypertrophy by enucleation through a suprapubic incision" the safest and most thorough of all the operations for the relief of prostatic obstruction. Operative recovery has occurred in every case of the 31 treated in the Mount Sinai Hospital, and perfect functional recovery in all except two; and even these two patients urinate without the use of the catheter. Most of the patients were feeble, and many had renal disease and cardiac weakness, several had vesical calculi, two were diabetic, one was a sufferer from tabes, and after the failure of a Bottini's operation it was thought that the vesical disorder might be of nervous origin. He was promptly cured by suprapubic prostatectomy. In view of such a record, he says it is but natural that he should prefer the operation which has made it possible. In enumerating some of the advantages of this operation, Lilienthal states: "It is radical; no important vessels or nerves are cut; the urethra is not injured; wounding of the rectum must be extremely rare (the author not having seen it); palpation and inspection of all parts of the interior of the bladder are easy and accurate; no part of the urethra having been removed, treatment by the passing of sounds is avoided; the operation may be easily performed under nitrous oxide anæsthesia; the operation may be performed in two stages, which may be of enormous value in hæmorrhage, in uræmia, or in grave sepsis of the bladder, when catheterisation is difficult or painful or dangerous; lastly, but far from least, impotency rarely supervenes."

Wiener, in a paper entitled "Suprapubic Prostatectomy without Ether or Chloroform," gives particulars of 11 cases included in Lilienthal's 31, operated upon at the Mount Sinai Hospital, nitrous oxide gas having been the anæsthetic used in all of them.

Young deals with the subject under the title of "Conservative Perineal Prostatectomy," giving the results of two years' experience and report of 75 cases. This operator makes the inverted V incision, and after exposing the sheath of the prostate and the membranous portion of the urethra behind the triangular ligament, makes an opening in the latter, through which he introduces a tractor into the bladder. It is important to secure the edges of the mucous membrane of the urethra with a suture or forceps before introducing the tractor. After the introduction of the tractor, its blades are opened out and traction made, thus bringing the prostate down into the wound and exposing its posterior surface. Incisions are then made in the capsule on each side of the ejaculatory ducts, through which the lobes of the prostate are removed by means of the finger or forceps. Each step of the operation is very clearly illustrated. If a large calculus has to be removed as well, the side of the urethra is incised. The after treatment consisted in abundance of water by mouth or infusion, getting the patient out of bed as soon as possible, and avoidance of instrumentation. Results:—During the past two years 75 cases were operated upon. Their ages ranged from 45 to 87; five were under 50, and four were over 80. There were no deaths definitely attributable to the operation, in that all reacted well and convalesced satisfactorily for at least two weeks after the operation. Four, however, died between two and five weeks after the operation from various complications. Recto-urethral fistula had occurred in some of the earlier cases, but in the last 35 cases in which the levator ani muscles have been approximated by a catgut suture, and care has been taken to have no gauze press upon the rectum, there has been no case of rectal breakdown. In closing, the author states that after about 200 operations on account of hypertrophied prostate, among which were 85 Bottini operations with six deaths, 20 suprapubic prostatectomies with three deaths, he has come to the conclusion that for most cases perineal prostatectomy is the safest and surest and quickest method of curing the patient. The suprapubic route may be used in certain large intravesical lobes.

Ruggles discusses "The Cause of Incontinence as a Sequence of Prostatectomy." He says the percentage of such cases has been large in Rochester. Five cases of incontinence have occurred in 39 prostatectomies, or 13 per cent. Watson, in his exhaustive article published in the *Annals of Surgery*, June, 1904, in a *resumé* of 530 cases, gives the percentage of incontinence as 3½. After quoting several theories that have been advanced as to the cause of the incontinence, the author gives his reasons for thinking that the real cause is injury to the membranous portion of the urethra, which is the external sphincter of the bladder. In the perineal operation the incision into the urethra should be made as close to the prostate as possible, and exactly in the median raphe of the compressor urethræ, and the utmost care be exercised to avoid stretching and laceration of the muscle.

L. M. Pilcher discourses on "The Choice of Operative Method for the Removal of the Hypertrophied Prostate." The question is no longer what is possible in the hands of the specially expert, but what, in the light of our present knowledge of the anatomical relations and the pathological changes of the prostate gland, will in the hands of the average surgeon most certainly and safely wholly and permanently relieve the obstructive dysuria that the prostatic disease has produced. *Mortality.*—At present it would seem that a surgeon must expect a death rate after prostatectomy of from 5 to 10 per cent. *Expectation of Cure.*—The primary indication is the re-establishment of the ability of the individual to readily, fully, and painlessly evacuate his bladder. With these reservations, the accumulated experience of the past ten years is that in more than 60 per cent. of the cases that have been subjected to prostatectomy, the ability to empty the bladder spontaneously has been restored and has been maintained permanently. The details of the operation as practised by this operator are fully illustrated by means of photographs, the operation performed being a perineal one with a free curved incision, so that most of it is done by sight and not merely by touch. All the usual complications and sequelæ are fully dealt with. The paper closes with the following conclusion:—These results have given me the highest satisfaction. They have fully equalled the expectation which the representations of other surgeons as to their experience in the work had created, and have definitely settled in my mind the conviction that at last surgery had to offer to the unfortunate and aged "prostatic" a fairly safe and reasonably certain means of relief. In the light of present experience, and after as full a consideration of the anatomical and pathological conditions involved as I have been able to make, I am inclined to the conclusion that, as a rule, for the removal of the hypertrophied prostate the method of free curved transverse perineal incision, with full exposure of the gland in the wound of operation, is to be preferred. The series of papers ends with an exhaustive and profusely illustrated article by Cunningham, entitled "A study of various forms of prostatic hypertrophy from post-mortem specimens and by the cystoscope, with reference to operation."

Reginald Harrison (advance copy of an *Introduction to a Discussion on Prostatectomy at the Medical Society of London*, May 8th, 1905) says that perineal prostatectomy has not found much favour in England. He thinks it is of limited application, and in his own practice had been almost entirely confined to some partial removals of the gland. For instance, pendulous outgrowths of the so-called middle lobe may be satisfactorily dealt with. This method may also be utilised for the enucleation of unilateral adenomata of the prostate. He quotes with approval the following statement of Dr. W. White, of Philadelphia:—"Past experience does not justify the expectation that the results of prostatectomy by the perineal route will compare favourably with those of total enucleation." Harrison looks upon the suprapubic operation practised by Freyer "as the operation of choice in the majority of cases." The possible presence of a vesical calculus with the hypertrophied prostate, he thinks, a cogent reason for adopting the suprapubic route.

Decapsulation of the Appendix.

Isaacs (*Medical Record*, April 15th, 1905) describes a method of decapsulation of the appendix suitable in cases where the adhesions are very dense. The method is as follows:—Having located some portion of the appendix, preferably the proximal, the capsule is incised longitudinally opposite the mesenteric attachment if possible, so as to avoid the larger blood vessels. The white glistening surface of the middle layer is the guide to the depth of the incision. The incised serous coat peels off very easily, and with the blunt end of the scalpel handle, or with a periosteum elevator, the core can be easily separated and raised from its bed without fear of hæmorrhage. This white core now serves as a guide to the capsule, inside of which it can be loosened up a short distance, then the capsule split for that distance, and the procedure repeated till the whole length is delivered. When the appendix is perforated the inner layers are gangrenous, and the core is, therefore, likely to tear within its capsule on the least traction. In such a case, while it makes conditions somewhat more difficult, it is comparatively easy to follow up the capsule, find the other end of the torn core, and proceed with the decapsulation. The author's experience tends to indicate that 20 per cent. is a moderate estimate of the general run of cases where the procedure may be of service.

THERAPEUTICS.

Treatment of Acute and Chronic Articular Rheumatism.

Illman (*American Medicine*, March 11th, 1905) remarks that, believing that the gastro-intestinal tract is at fault in most cases of acute and chronic articular rheumatism, he has recently adopted salol as a basis of treatment, with most gratifying results. He administers this drug, not primarily for the rheumatic condition, but rather for the cause of it—a fermenting catarrhal bowel. To give large doses of any salicylate at once in cases where the stomach and bowel are in a condition of catarrh is sure to defeat the very purpose for which they are administered, and, by upsetting the stomach still further, make the condition of things worse. A purge is the primary indication for treatment, and a clean alimentary tract is necessary before the best results of internal treatment can be obtained. The disinfectant and anti-fermentative effect of salol following a brisk saline purge makes this drug so effective in the treatment of rheumatism, especially as it also contains five parts of salicylic acid. Outside the salicylates, the best results can be obtained by the use of magnesium sulphate. In the treatment of chronic rheumatism we are confronted with the problem as to the advisability of the long-continued use of the salicylates. The salicylates neither control nor prevent inflammation of the endocardium or pleura, and, with the exception of salol, fail to have any marked effect upon the temperature. Some authorities even believe that endo- and peri-carditis are more frequent since the introduction of the salicylates. The author therefore avoids the use of excessive doses of the salicylates, only giving them when beneficial results are not obtainable without them, and then not over an extended period after the subsidence of the symptoms, depending upon baths, diet, hygienic and saline treatment to bring about a complete cure. The serum treatment appears to be reasonably successful. The institution of a system of drainage from the skin, kidneys and bowel, whether for the purpose of eliminating a germ or its toxic product, or the toxic product of a faulty metabolism, is necessary. The increased elimination of urea is beneficial, and the static wave current is undoubtedly an assistant in this direction. In chronic rheumatism, massage, both local and general, exercise, faradism and baths are very beneficial. The benefit derived from a residence at one of the European bath resorts is due, no doubt, to the ingestion of large quantities of a water which is mildly alkaline and laxative, which thus drains the system through the bowel and the kidneys.

Intravenous Injection of Antitoxin in Diphtheria.

Two years ago Cairns published some results of this method of treatment, and we abstracted his paper in this journal. J. C. Muir (*Lancet*, December 24th, 1904) has published some investigations on the same subject, and in a series of 38 cases which were treated by intravenous injections of antitoxin there were three deaths. He states that in attempting to estimate the beneficial results of this method of treatment it is necessary to discount those cases in which a marked improvement follows intubation or tracheotomy, since the improvement may be mainly due to the relief thus afforded. In Muir's series of cases, of 9 that were operated on only 1 died. Even in cases other than laryngeal and without tracheotomy or intubation it is very difficult to say that a better result was obtained in any individual case than might have followed on subcutaneous injection. A still more important difficulty in estimating the benefit derived from any special method of administration is the well-known fact that the virulence of the infection varies very considerably in different epidemics; and although many of the cases treated by Muir were undoubtedly severe, yet there had been a general fall in the fatality of diphtheria in his district.

Treatment of Pneumonia in Adults.

Anders (*Journal of the American Medical Association*, December 10th, 1904) discusses the serum treatment of pneumonia, and reaches the following conclusions:—1. A sufficiently extensive trial of the anti-pneumococcal sera has been made to determine with a reasonable degree of accuracy their efficiency, and the results, as a whole, fail to carry conviction. 2. An efficient serum, or one that will cut short the pneumonic process, is yet to be produced, although, according to some clinicians, the sera available at present have a restricted field of usefulness. 3. Recent observers have employed the serum in massive doses from the commencement of the disease without gratifying results. 4. The practical results of the use of anti-pneumococcic serum, as shown by the very slight reduction in the mortality percentage, does not warrant its general introduction. 5. The sera thus far found possess no antitoxin qualities, and their supposed anti-infectious properties have not been proven. 6. Further investigations into the subject with a view to discovering an efficacious serum are to be strongly advised and encouraged. Manges (*Medical Record*, December 10th, 1904) remarks that the important indication to support the heart in this disease can best be understood by considering that the dangers to the heart are fivefold:—1. Damage to the medullary centre which will result from the toxæmia. 2. The effects upon the heart muscle are now well understood, since Krehl, Romberg and others have shown the insular infiltration and degeneration about the smaller vessels which are so characteristic of acute infections. The muscle is also affected by the hyperpyrexia. 3. The work of the right ventricle is very materially increased by the obstruction to the pulmonary circulation which is offered by the hepatised lungs. The danger to the right heart is more serious in all cases where its work has already been materially increased by emphysema or a mitral lesion. 4. The left ventricle plays a less important rôle, and usually suffers as a result of the textural changes already noted. 5. The work of Romberg has shown that the blood pressure is not high, as is usually supposed; on the contrary, it is in the majority of cases diminished, the lowest pressure being observed at the time of the crisis or shortly after. The *rationale* of the digitalis treatment and of the ergot plan of treatment, and all other methods for effecting the contraction of smooth muscular fibre is evident, and the fallacy of treatment by nitroglycerine is apparent. The vaso-motor paralysis is not confined to the blood vessels alone, but involves also the intestines, as the atonic distension of the abdomen, which constitutes so prominent a part of severe cases, clearly shows. The drugs which meet these indications for the support of the heart are strychnine, caffeine, alcohol, camphor and ergot. The caffeine is best given in solutions of the benzoate or salicylate; the ergot either in solution or administered hypodermically. If the results are not promptly obtained all the drugs should be given hypodermically. Many observers have reported well of enemata of salt water or subcutaneous injections of saline solution. Adrenalin in doses of 15 minims of the 1 in 1000 solution, either by mouth or hypodermically, is also of use. An icebag over the precordium may also help to strengthen a struggling heart.

DISEASES OF EAR, NOSE AND THROAT.

Mastoid Operations.

Hastings (*American Journal Medical Sciences*, 1905, vol. cxxix) summarises data from 281 consecutive cases out of 447 patients (one-fifth children) admitted into hospital. Diplococci and streptococci were found in the aural pus before operation in 49, streptococci in 38, pneumococci in 37, and a mixed infection in 43. In two the bacillus of influenza was found, and in two the spirillum of Vincent. In the mastoid pus, streptococci were found in 35, and pneumococci in 20, out of 69 examined. Pneumococcal infections were found in the less virulent. Mastoid swelling was present in 100 out of 447 cases, and in 72 of these subperiosteal pus was found at operation. In 28 the swelling was due to œdema. Of the 72 cases, 56 were children, and in them the swelling was one of the earliest signs of mastoiditis. Tenderness was most marked over the antrum and the tip in 84, solely over the antrum in 3, solely at the tip in 8. Of 281 cases seeking operation, 37 had post-auricular fistulæ; 30 due to former mastoid operations, and of these 27 were children; 7 due to rupture of subperiosteal abscess. In 7 cases an abscess had developed under the scar of a former operation. In the acute cases the membrane tympani was red and bulging, with or without perforation. In 2 only it was not inflamed, though pus was present within the mastoid. In over half the cases temperature was below 100°F., and in only 13 was it over 102°F., on admission. Six out of 167 cases treated by paracentesis and irrigation, with ice and leeches to the mastoid, returned for operation. All were adults. Of the 281 operations, 164 were mastoids for acute mastoiditis following acute suppurative otitis media; 25 were radical operations, secondary to former unsuccessful mastoid ones; 48 were radical ones for curing a chronic ear. Cholesteatoma was found in 20 chronic cases. In no case was the dura opened accidentally. Epidural abscess was found in 21 cases. Fatal meningitis occurred in 2, both adults. Of 9 cases of sinus thrombosis only two were due to acute otitis media; 7 resulted from extensive mastoiditis following chronic middle-ear suppuration. Five of the nine got well. Of 90 mastoid operations, 62 made a complete recovery, 9 died, 7 had a persistent otorrhœa; in 14 the mastoid did not heal, and 9 were again operated on. Average duration of 62 cases was 67 days. Of the 14 failures, 11 were babies. Of the 9 deaths the causes were meningitis 5, sinus thrombosis 1, diabetic coma 1, anæsthesia 1, after leaving hospital 1. Facial paralysis was present in 5 out of 164 acute cases of middle-ear suppuration, and disappeared after operation, except in one five months' old baby. In 3 of 6 cases in which the paralysis was due to operation, all babies, it persisted. Of 117 radical operations, 26 gave apparently perfect results, 20 were progressing well when last seen, 2 were failures, and 8 died. The remainder were not followed up. Facial paralysis resulted in 20 of the 117 cases, 10 recovered, 4 remained unaltered, 6 were lost sight of; death resulted in 8—suddenly on the table 1, lepto meningitis 1, extensive mastoiditis due to chronic ear disease in 6. Total mortality, 17 in 281 operations.

Acute Otitis Media in Children.

Kesby (*Archives of Pediatrics*, October, 1904) gives observations on 51 cases treated by operation. Of these, 16 were under 1 year, 17 were 13 to 30 months old, 12 aged 3 to 6 years, and 6 between 8 and 14 years. In 28 the disease was bilateral. In three cases the disease was primary. The causes in 48 cases were: German measles, 1; scarlet fever, 2; measles, 7; catarrhal colds, 38. Pus was found in the middle ear in 48 and serum in 3, streptococci alone in 13, staphylococci alone in 11, pneumococci in 2, and combinations of these in the others. Pain and localised signs were present in one-third only of the cases. In four the mastoid and in three the jugular bulb became involved, the rest were uncomplicated. The mastoid cases made good recoveries. In 33 of the uncomplicated cases the discharge ceased and the drum closed in 13 to 14 days; in 7 cases, from 14 to 21 days. After paracentesis the ear was syringed with eight ounces of 1-10,000 bichloride every three hours for 24 to 48 hours, and then according to the progress of the case. Two-thirds of the children were strong and well nourished. In none were the tonsils sufficiently large to require removal. In six cases there was nasal obstruction, suggesting adenoids. The fact that in 72 per cent. the cause was a so-called catarrhal cold emphasises the importance of being on the outlook for this complication, particularly if there is a rise of temperature. Another striking feature is the absence of pain and localising symptoms in two-thirds of the cases. In the mastoid and sinus cases the children did not appear very ill. When the temperature was low they sat up and played, and were fairly bright. For this reason it was difficult to make parents realise the necessity for operative treatment. Without such treatment pyæmia soon occurs.

The Relation of Diseases of the Stomach to Affections of the Mouth, Nose and Throat.

Levy (*New York Medical Journal*, December 17th, 1904) calls attention to the association of gastro-intestinal disturbances with affections of the nose and throat, and points out that many of the diseases of the mouth, nose and throat resist treatment until measures intended to correct general disorders are instituted. Diseases of the upper air-passages are classified into three groups—(1) Those in which local measures are indispensable; (2) those in which general treatment is indispensable along with local; (3) those demanding purely constitutional treatment. Many observers have shown that gastric catarrh and dyspepsia follow the swallowing of secretions from the naso-pharynx. Among the diseases of the nose which are more closely connected with gastro-intestinal affections are vaso-motor rhinitis, nasal irritation, and red nose. Of 30 adults with post-nasal catarrh, 20 had affections of the stomach, demonstrable by the examination of the stomach contents; while of 15 children with adenoids, 10 had affections of the stomach.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Physicians—A Royal Society of Medicine—The Etiology of Cancer—The Control of Hospital Expenditure—Tropical Medicine and the London University—Dental Disorders—Senor Garcia's Centenary—Munificent Gift to London University.

An extraordinary comitia of the Fellows of the Royal College of Physicians of London was held on April 17th for the purpose of selecting a successor to Sir William Selby Church. The President of the Royal College of Physicians, who may be regarded as the official head of the medical profession, is frequently called upon to represent his profession both at public and private ceremonials; he is also consulted officially and confidentially by the Government in reference to matters connected with the public services. The individuality of the occupant of the presidential chair is therefore of importance to the public as well as to the medical profession. Sir William Church held the position for the unusually long period of six years, and the gentlemen nominated as candidates to succeed him were Sir Richard Douglas Powell, Sir William Broadbent, and Dr. P. H. Pye-Smith. Two ballots were taken, and eventually Sir R. Douglas Powell was declared to be elected. The new President is a baronet, a Knight Commander of the Victorian Order, and Physician Extraordinary to the King, having been formerly Physician in Ordinary to Queen Victoria. He is Consulting Physician to the Middlesex, Brompton, and St. Mark's Hospitals, and President of the Royal Medical Chirurgical Society. His connection with the College of Physicians began in 1867, when he was elected a Member; in 1873 he became a Fellow, and he was appointed Senior Censor in 1902.

At the annual general meeting of the Royal Medical and Chirurgical Society held on March 1st, Sir Richard Douglas Powell, the President, in the course of his address to the Society, spoke of the enormous advantages that would accrue from an amalgamation of the medical societies of London into one Royal Society of Medicine. The suggestion met with much favour from those present, and finally the following resolution was proposed by Sir Thomas Smith and seconded by Mr. Goodsall:—"That the Council of the Society be requested, with as little delay as possible, to invite the leading medical societies of London to arrange for a joint meeting for the purpose of considering the advisability of amalgamating, and to take the necessary preliminary steps for that purpose." In accordance with this resolution, a meeting of Fellows and Members of the medical societies of London was held, under the chairmanship of Sir William Church, at the College of Physicians, on April 10th. There was a large and representative attendance, and it was finally decided to nominate a committee to make such enquiries as may be necessary, and to submit a scheme of union to the various societies for their consideration at a general meeting to be convened in July next. This is not the first time that such a proposal has been made, but all previous attempts at amalgamation have, for one cause or another, failed. There is much to be said from every point of view in favour of a scheme which will concentrate the energies, increase the popularity, renew the vitality, and lessen the working expenses of our numerous medical societies. If the present attempt is carried to successful accomplishment, the centenary year of the Medico-Chirurgical Society will be marked out as a red-letter date in the history of medical organisation.

In the course of a lecture delivered before the Berlin Medical Society on March 8th, Professor von Hausemann declared himself to be a determined opponent of the parasitic theory as applied to the causation of cancer. He pointed out that it had not yet been found possible to produce cancer in animals by transmission from human beings. It had not been proved that cancer occurred in the form of an epidemic in certain places or that it was hereditary in certain families; and even if this had been proved, it would not throw any light on the question of infection, as cancer was very prevalent. The increase in cases of cancer, which amounted to from two to three per cent., was only an apparent increase, due to the fact that more cases were detected now than formerly. The constant and increasing anxiety of the general public in regard to cancer was, Professor Hausemann considered, quite unfounded. Care should be taken not to represent cancer as an infectious disease which could be transmitted from one person to another. The sufferings of the unfortunate victims of cancer were only intensified by the idea that they might be the cause of the spread of the disease. The Professor agreed with the view that cancer could only be caused by external violence in cases where such violence was continued for a length of time and exercised a chronic influence. Malignant swellings which had their origin in irritations differed in nature and strength, and it might therefore be assumed that there were many causes of cancer. During the discussion following the lecture, Professor von Leyden vigorously defended the parasite theory, and expressed his conviction that the whole course of the disease confirmed this theory. He maintained that cancer parasites inhabited the cancer cells, grew with them, and caused a constant spread of the growth. He himself had proved the existence of certain germs of cancer in the shape of small round bodies which lay firmly embedded in the cells. Various chemical experiments, he said, which had been made in the cancer department of the Berlin Charity Hospital also confirmed the parasitic nature of the disease.

At a meeting of the Hospitals Association held in the hall of Charing Cross Hospital on March 3rd, Dr. D. J. Mackintosh, M.V.O., Medical Superintendent of the Glasgow Western Infirmary, delivered an address on "The Control of Hospital Expenditure with Efficiency." Dr. Mackintosh, at the outset, declared that his paper contained simply a few suggestions for the control of hospital expenditure, which were the result of a personal experience extending over the past twelve years. The first condition of effective hospital management was that the accounts should be kept in such a way that a layman could at any time see what was spent in each item in each separate department. The whole work of superintending the various departments should be focussed in the hands of a single administrator directly responsible to the board of managers. The dove-tailing of the departments into one another for administration was a necessity. If this condition was impracticable the hospital was too large. With regard to the consumption of provisions, the exact expenditure on meat, fish, butter, and other eatables consumed in the wards, by the nurses, or the servants should be ascertainable at any time. Unless accurate and minute details making up the actual daily consumption were available, the expenditure could not be controlled in any hospital. Referring to an article in *The Standard* of January 19th, he quoted the words of Mr. Sidney

Holland, who said, "We want to find out how some of the 'Scotch hospitals' managed their provision departments so 'cheaply.'" With regard to the Western Infirmary, they supplied their patients with everything they required during their residence, including tea, sugar, and butter; they used no foreign meat, and the milk came in sealed cans from a regularly inspected farm. He pointed to certain differences in the dispensary departments in Scottish hospitals as compared with those in England, claiming that the method adopted in Scotland was the more economical. To prevent waste in the matter of surgical dressings, he advocated the adoption of the Scottish system, by which there was a sister in charge of a set of wards, under a surgeon, who submitted books each day, showing the details of requirements. Under the heading of breakages and removals there were 48 items enumerated in this hospital, and carelessness on the part of a sister in charge could be detected at once. In the matter of heating and lighting, important economies could be effected without the sacrifice of efficiency. In the Western Infirmary they generated their own steam for heating, cooking, working lifts, for laundry uses, the generation of electricity, and kept going a number of electric ventilating fans, and electric lamps for the treatment of lupus. The generating of electricity cost them a fraction under 1d per unit for everything. They employed two engineers, three stokers, and a relief man. In conclusion, Dr. Mackintosh dwelt upon the necessity of the administrator having the confidence and support of a properly-constituted, businesslike, and representative board of managers.

In response to petitions presented by the School of Tropical Medicine, the Senate of the University of London has decided that candidates shall be allowed to choose tropical medicine as the special branch of study in which they may be examined for the degree of Doctor of Medicine. In thus recognising the School of Tropical Medicine the University of London has brought itself into line with Cambridge and other Universities in regard to the importance of the health of Europeans and natives in the tropical dependencies of the Empire, and has shown its appreciation of the important place now held by tropical medicine in medical education.

The annual meeting of the Governors of the Royal Dental Hospital was held in Leicester Square on March 14th, when the chair was occupied by the President of the Royal College of Surgeons. In the course of his address to the Governors, Mr. Tweedy pointed out that, though anæsthetics were in daily use at the Dental Hospital, no life had been lost through their administration for upwards of twenty years. This could not but be regarded as a creditable record of which any institution might well be proud. He then referred to the Inter-Departmental Committee which was appointed last year to inquire into the alleged physical deterioration of the British race. That inquiry had its inception in a memorandum drawn up by the Director-General of the Army on the physical unfitness for military service of a large number of those who came forward as recruits. In the year 1903 not less than 40 per cent. of those who offered themselves were rejected, mainly on account of the loss or decay of their teeth. This was a very grave social, national, and Imperial question. It had been said that armies fought with their teeth, and soldiers and sailors who had not good teeth could not live on the hard fare which they must necessarily accept under the conditions of war. Possibly no single thing was more inimical to physical well-being, especially in young people, than were the defects and diseases of the teeth. Much of the decay and loss of teeth in recruits could have been prevented by the exercise of intelligent care and forethought.

Senor Manuel Garcia celebrated his hundredth birthday in London on March 17th. In the morning King Edward gave him a special audience at Buckingham Palace, and conferred on him the decoration of Commander of the Royal Victorian Order. At noon, at a meeting representative of many learned societies, held at 20 Hanover Square, the Spanish Charge d'Affaires, on behalf of the King of Spain, presented the venerable inventor of the laryngoscope with the Royal Order of Alphonse XII., and Professor Frankel followed with the announcement that the Kaiser had bestowed on him the Great Golden Medal for Science. Numberless addresses and messages swelled the stream of congratulations, and the proceedings terminated with the unveiling of the portrait by Mr. Sargent, R.A., the gift of admirers in all parts of the world. In acknowledging the shower of compliments and distinctions which were bestowed upon him, Senor Garcia, speaking in a low voice, tremulous from emotion, returned his thanks for the honours conferred by the three Sovereigns. He reminded his friends that it was to a great English society that he owed his first hearing. The great invention which constituted so marked an advance in laryngological science he modestly described as "a little instrument." To each of the learned societies in turn he expressed his deep sense of obligation, and concluded by thanking Sir Felix Semon for organising that wonderful demonstration. The day's festivities terminated with a banquet, which was held at the Hotel Cecil in the evening. Mr. Charters J. Symonds, the President of the Laryngological Society of London, presided over a large and thoroughly representative gathering. In the course of the evening's proceedings the following telegram was received from the King of Spain:—"Congratulate personally Don Manuel Garcia on the celebration to-day of his 100th birthday, and bestow the Royal best wishes on the grand old Spaniard, who, by his invention and works, has glorified and exalted the name of Spain." The health of the guest of the evening was proposed by Sir Felix Semon, who, in the course of his remarks, dwelt upon the veteran's memorable services alike to the art of music and the science of medicine, and alluded to some of the salient features in his long and distinguished career. There was something awe-inspiring, he said, in the thought that here amongst them, in full possession, happily, of all his faculties, was one who was born when Napoleonic power was at its height, whose recollections of life went back to the Peninsular war, who was a grown-up man when Beethoven and Goethe died, and who had witnessed all the political evolutions and revolutions, all the developments in steam power, electricity, in the natural sciences and industrial progress which had marked the nineteenth century. Looking at the results that had been brought about by his invention of the laryngoscope, in the alleviation of affliction and suffering, Manuel Garcia might well be called a great benefactor of mankind, and deserved the gratitude of the human race. Apart from his long and devoted labours in the cause of the art he loved and had fostered, their revered guest had, by the invention of that little mirror, for which medical science had to thank him, erected for himself "a monument that will outlast brass and o'ertop the pyramids of kings." On rising to respond to the toast of his health, Senor Garcia was received with a genuine ovation. Words, he said, were given to us to conceal our thoughts, and well might they fulfil that purpose if his hearers would accept his as a complete expression of his feelings "on that extraordinary occasion." But words were no mere masks. They were living things to those of us who "held the magic ring that makes us slaves." They were as mighty friends—such friends as those he saw around him, who "from the ocean depths of their indulgence" flung back to him his own "poor, trivial deeds, transfigured into something rich and strange." Amid cheers, Senor Garcia, at this stage resumed his seat, leaving to the chairman the task of completing the speech which he had in part delivered. In its later passages grateful allusion was made to those—his old pupils and old comrades—who had come together in recognition of the great age to which he had attained. Playfully, he asked them to try and imagine themselves to be centenarians—a feat of imagination from which he exempted the ladies (who would never look that age, even if they came to it). It was good thus to be surrounded by the kindly, clamorous voices of troops of friends. Naught could he say in proof of his feelings of pride and gratitude. But, at least, there were present none who would for a moment doubt the fulness and sincerity of those feelings and of the emotions kindled within him by the tributes to which he had listened on that great occasion.

Mr. Alfred Beit has informed the honorary treasurers of the Institute of Medical Sciences Fund that, having read the report of the committee appointed by King Edward's Hospital Fund on the financial relations of the hospitals and medical schools, and the correspondence and article thereon in *The Times*, he has decided to increase the amount of his donation to the Institute from £5000 to £25,000. Mr. Beit desires by this gift to commemorate the kindness of his friend Dr. Jameson, C.B., the Premier of Cape Colony, and the services of members of the Faculty of Medicine during an illness from which he has now happily recovered. A proposal to accord the grateful thanks of the University to Mr. Beit for his munificent gift will be made at the next meeting of the Senate.

Victoria.

(FROM OUR OWN CORRESPONDENT.)

The Premier and the Kronheimer Wing of the Austin Hospital—Decreasing Death Rate in Melbourne from Phthisis—Proposed Extension of Area of Notification of Phthisis—A Medical Practitioner Fined for not notifying a case of Phthisis—An External Department in the Women's Hospital.

IN our last communication we mentioned that before allowing the Kronheimer wing at the Austin Hospital to be opened the Premier had announced his intention of visiting the hospital. The result of his visit may be gleaned from the following minute which he recorded :—"Melbourne, April 10th. Permission will be given for the opening of the Kronheimer wing of the Austin Hospital for Incurables at Heidelberg on condition that the other parts of the hospital are to be utilised for incurables other than those suffering from pulmonary tuberculosis; this condition to be in addition to those already imposed.—Thos. Bent." This minute was considered by the committee of the hospital, when they decided that they could not open the wing under those conditions. The following motion was forwarded to the Premier :—"The committee of the Austin Hospital inform the Premier that, anxious as they are to open the Kronheimer wing, they cannot consent to do so under the condition laid down in the Premier's minute." The reasons they gave were (1) that the Kronheimer wing was not built or suited for the accommodation of two sexes; (2) that the condition excluded the children's wing; (3) that the wards at present used for pulmonary tuberculosis were built specially from funds provided for that purpose; and (4) that the condition imposed utterly defeated the object of Mr. Kronheimer's benefaction, namely, to provide accommodation for 60 additional cases of advanced phthisis. They also informed the Premier that they were perfectly willing to open the wing under the original condition that they should be allowed to make use of 30 other beds for advanced and incurable cases. To this no answer has, we believe, been received, and so the matter stands. We are informed that the Broadmeadows Sanatorium, which has now been opened, is to be reserved as far as possible for early cases. If this is so, where is sufficient accommodation to be found for advanced cases, which from their very nature constitute the greatest menace to the public health? Here is winter upon us and many of these cases in our city and suburbs are still unprovided for.

A more hopeful and encouraging note in connection with the subject of phthisis was, however, struck at the last meeting of the Board of Public Health. Statistics show that in the metropolitan area of Melbourne and suburbs the number of deaths from pulmonary phthisis, which in this area is now a notifiable disease, has fallen materially. Between 1899 and 1904 the death rate from phthisis pulmonalis has fallen from 20 to a little over 13 per ten thousand, and is steadily decreasing. Dr Norris, the chairman, pointed out, however, that in Bendigo and Ballarat, the two largest extra-metropolitan areas, the death rate from this cause was still excessive. In Bendigo it was still 22 per ten thousand. This high rate may in part be due to the fact that the Bendigo climate is eminently suitable for consumptives, and that this is largely availed of by patients from other centres. In Ballarat, however, which does not harbour many visiting consumptives, the death rate is still over 16 per ten thousand, showing no decrease since 1899.

Dr. Norris proposed that section 125 of the Health Act stipulating that phthisis must be reported should be applied to Ballarat and Bendigo to enable the local councils to take action to lessen the death rate. The suggestion was accepted by the Board, with the addition of Geelong, the third largest extra-metropolitan area. It is to be hoped that this action will be speedily followed by a decrease in the death rate from phthisis in these centres.

Recently a medical practitioner in Prahran was proceeded against and fined for failing to notify a case of phthisis. This has roused up the municipal authorities elsewhere, some of whom have announced their intention to institute similar prosecutions in all cases of failure to notify cases of pulmonary tuberculosis in accordance with the provisions of the Health Act.

The committee of the Women's Hospital have under consideration a scheme for the establishment of an external midwifery department with a view to treating patients in their own homes. However necessary and successful such an institution may be in the cities of the old world, taking an outside view of the question, we are inclined to doubt the necessity for it in Melbourne. The committee and staff of the hospital are, however, to be trusted to so safeguard the scheme that it will not add to the hospital abuse, which is so rampant in our midst.

South Australia.

(FROM OUR OWN CORRESPONDENT.)

The Australasian Medical Congress—The Annual Report of the Adelaide Hospital—The Abuse of the Adelaide Charities—The Queen's Home—District Trained Nurses' Association—The Kalyra Sanatorium.

Great interest is being taken in the Australasian Medical Congress, which is to be held in Adelaide in September. This interest is not merely confined to the profession, though, naturally, it is their's which is keenest. The usual travelling concessions have been granted by the Government, and the Premier is anxious that the Congress should be a great success. The programme for the entertainment of visitors is practically complete. In September, Adelaide and its surroundings are at their best.

The annual report of the Adelaide Hospital has just been issued. It is interesting to note the amount the hospital dispute has cost the country. The following table shows this clearly :—

Year.	No. Cases Admitted.	Daily Average.	Cost per Bed per Annum.	Total Annual Expenditure.
1896 ..	2,438	225	£61 16 8	£14,890 9 8
1897 ..	2,740	231	71 1 10	17,568 4 10
1898 ..	3,246	234	69 14 6	17,564 19 1
1899 ..	3,493	214	69 7 6	18,200 12 0
1900 ..	3,036	219	75 5 10	17,616 1 8
1901 ..	3,371	250	75 12 11	20,103 12 8
1902 ..	3,193	248	73 5 6	19,065 1 8
1903 ..	3,055	254	66 8 5	17,542 10 8
1904 ..	2,724	214	68 16 10	15,491 7 4

It is seen that the total annual expenditure and the average cost per bed per annum have never been so low as they were in 1896, the first year of the hospital dispute. After 1896 there is a gradual increase under both headings until the high-water mark was reached in 1901. In that year the total annual expenditure amounted to £20,000, and the cost per bed per annum to £75. The increased cost to the taxpayer continued until last year, when the amounts were £15,500 and £68. In 1896 the table shows that the sums under these headings were £14,900 and £61. It is fair to assume that under the old management the expenditure per annum would not have exceeded £15,500 (last year's expenditure). If this amount be subtracted from the annual expenditure for each year after 1896 and the results be added together, it will be found that the total loss to the State amounts to £20,000. It is probable, too, that this sum does not include the cost of importing doctors from England to fill the places of the old staff. None of the importations are now at the hospital. An interesting fact in the report is that only 12 cases of enteric fever were admitted into the hospital from Adelaide during 1904. These figures are the lowest during the last ten years, and speak volumes for the excellent sanitary condition of the city. Over £1000 was spent in improving the operating theatre. It has been brought up to date, and the staff appreciate all the conveniences. The acoustic properties of the theatre are, however, distinctly weird, and would shame the gallery at St. Paul's.

The question of the abuse of the Adelaide charities is receiving a good deal of consideration. Things seem to be just as unsatisfactory here as in New South Wales and Victoria. The committees of the various charities admit that there is abuse, and the Adelaide Hospital has appointed a sub-committee to consider the question. The Medical Defence Association is very active in pointing out to the various institutions that serious abuse exists. It appears in certain instances that medical men themselves have been the chief offenders in that they have not determined the suitability of applicants for charity. Probably more circumspection has been exercised at the Adelaide Hospital, for the in-patients in 1904 numbered 331 less than in 1903. The profession have regarded the Queen's Lying-in Home as a charity which is much abused, but probably this abuse has been much overestimated. A committee of the Medical Defence Association conferred with a sub-committee of the Queen's Home, and an arrangement was made which will, it is hoped, prevent abuse of the charity in future.

His Excellency Sir George Le Hunte and Lady Le Hunte are lending Government House and grounds for the purpose of a bazaar, which is to be held in October, in aid of the Queen's Home, the District Trained Nurses' Association, and the Royal British Nurses' Association. It promises to be the biggest thing of its kind ever held in Adelaide. The bazaar will be open for three days.

A branch of the Australasian Trained Nurses' Association has been established in Adelaide, and promises to thrive. It will be an excellent thing for the nurses to form an influential association which will be able to express their views with some weight. It is especially opportune at the present time, when registration is in the air.

A dispute has recently occurred between the committee of management of the Kalyra Sanatorium and Dr. Gault, the medical superintendent. Dr. Gault practices in Mitcham, about four miles from the Sanatorium. He was accused of devoting insufficient time to his duties. He replied that it was impossible for him to give the patients proper attention without having a resident medical officer, and that considering the amount of his salary his attendance was ample. The dispute culminated in his resignation, which was practically forced from him. Dr. Reissmann was appointed to take his place. There is a general feeling that Dr. Gault has not been well treated by the committee. He has made the sanatorium treatment of consumption his life's work, and it is chiefly due to his efforts that Kalyra exists at all. It is therefore a little hard that he should be branded with the stigma of what is practically dismissal from an institution which he did so much to foster. It is the intention of the committee to appoint a resident officer later on.

THE BATTLE OF THE CLUBS.

Sydney.

IN the western suburbs of Sydney some of the lodges have again been active in their demands for further concessions from their medical officers, apparently not yet being satisfied with their already generous terms.

The Western Suburbs Friendly Societies' Association, comprising a considerable number of the lodges in the district, offered one medical man an appointment as eye specialist to the association on certain terms. The matter was referred to the Western Suburbs Medical Association, who decided that it was unwise that such a practice should be started, and a resolution to that effect was unanimously passed disapproving of any member of the association acting as specialist to any lodge or lodges in the district.

Another old-established lodge drew up a formidable new agreement, covering many pages of tpye-written clauses, and this was placed before the medical officers for their signature. The demands of some of these clauses were outrageous. For instance, the medical officers were actually asked to *sign* that they would supply splints and bandages free of charge in cases of injuries; to *sign* that no extra charge would be made for anæsthetics during accouchements unless another medical man was called in; to *sign* that the charge for *any operation* would not exceed *one guinea*, and that the fee for any medical man called in for consultation or to give an anæsthetic should not exceed one guinea. (General practitioners in the western suburbs fancy they can hear the snort of some of the city consultants if they were asked to come out and see a case in consultation for a guinea.) This matter was referred to the Council of the Western Suburbs Medical Association, and the following resolutions were unanimously passed:—

"That in future no member of this association shall sign any agreement with any lodge which provides fixed fees for operations; such operations, and also anæsthetics and consultations, shall be a matter of arrangement between the medical officer and the patient."

"That no member of this association sign any agreement that he is responsible for messages sent by telephone."

"That in future no member of this association shall bind himself to administer chloroform in accouchement cases without extra fee."

It is only by medical associations as a body taking such stands as this and so supporting its members that we can hope to prevent any further unfair clauses being inserted in lodge agreements.

These resolutions have been approved by the Council of the New South Wales Branch of the British Medical Association.

National Association for the Prevention of Consumption.

The executive committee met at the British Medical Association Rooms on Friday, June 2nd, 1905. Present—Dr. P. Sydney Jones, Dr. F. Tidswell, Colonel Goodlet, Mr. F. Grimley (hon. treasurer), and Dr. G. L. O'Neill (hon. secretary).

The minutes of the previous meeting were read and confirmed.

The Hon. Treasurer reported that he had received £27 10s, which had been placed to the credit of the Branch in the Barrack-street Savings Bank.

The Hon. Secretary reported that since the last meeting the rules of the Branch had been printed and were now ready for circulation among the members; also that the Hon. the Acting Premier had received a deputation from the Branch at which he had consented to place before the Cabinet the question of providing hospital accommodation for advanced cases of tuberculosis; also that the Hon. Premier had been pleased to order the printing at the Government Printing Office of 100,000 pamphlets for the Society.

It was resolved—"That the Hon. the Minister for Public Instruction be requested to receive a deputation from the branch requesting the co-operation of his department in our work; such aid to consist in the distribution of one of our leaflets to each public school teacher in the State, who shall at certain times in the year read and explain its contents to the pupils under his charge.

During the discussion on the motion it was suggested by Dr. Tidswell and carried that the teachers be supplied with further copies of the pamphlet for distribution among the children.

It was resolved—"That the Hon. Secretary be instructed to write to each Mayor in the State requesting him to call a public meeting, having for its object the founding of a sub-branch in his municipality."

The Hon. Secretary was instructed to write a letter to the doctors in each municipality requesting them to co-operate with the Mayors in the matter.

A cordial vote of thanks was accorded to the Hon. the State Premier for the assistance given to the Branch, by the Government having printed leaflets on "How to prevent Consumption."

The Hon. Secretary referred to the difficulty he had met with in securing the disinfection of tuberculous dwellings situated outside the city area, as the Sydney municipal authorities had refused to employ their disinfecting staff outside the city confines.

In the discussion which followed, Mr. Grimley com-complained of the insanitary state of telephone exchanges and other places of public resort. Dr. Tidswell promised to collect data on the subject of germ infection from such places. and said he would place the information at the disposal of the Branch.

It was resolved—"That the Board of Health be written to on the subject of disinfecting tuberculous dwellings outside the city area, and be requested to secure a wider diffusion of their placard on consumption, by having it shown in all police courts, public offices, railway stations, post offices, and other places of public resort."

Medico-Legal and Medico-Ethical.

A RECENT case before the City Coroner, Sydney, possesses some points of medico-legal interest. On the certificate of a nurse that it was prematurely born, the dead body of a male infant was removed from its parents' residence by an undertaker, and was afterwards buried on a further certificate, purporting to be signed by the same nurse, that it was prematurely and stillborn. The nurse subsequently denied all cognisance of this latter certificate, and it was afterwards stated in evidence that it was written by the mother of the child. The Registrar refused registration, and the body was exhumed by order of the Coroner.

At the inquest the undertaker stated that he would always accept and bury on a certificate of stillbirth given by any nurse, no attention being paid to the qualification or respectability of the nurse. In fact, if the certificate purported to be signed by a nurse, even if he did not know her to be a nurse, he would accept and bury. He further stated that this practice was universal amongst undertakers.

Apart from the possibilities of criminal practice that this case disclosed, and which were strongly commented upon by the Coroner, the post-mortem examination was of considerable interest. The evidence at the inquest showed that the child was born at 3.45 o'clock in the afternoon. The nurse stated that at first it was blue in the face and breathed badly, but that afterwards it cried, breathed better, and when she left appeared fairly right. The father saw the child alive and crying at 6 p.m., and again at 11 p.m. His wife called him at five next morning to see the child, which was then dead.

The post-mortem was made four days later. The body was, however, quite fresh and showed no external signs of decomposition, except that the portion of cord still attached was softened, whilst internally there was some discolouration of the walls of the stomach and intestines, and slight softening of the brain. The body weighed 5 lb. 8½ oz., and measured 18½ inches in length. The centres of ossification in the lower femoral epiphyses measured barely two millimetres in diameter. The pericardial sac contained a small quantity of fluid. Both auricles and the veins of the thorax, neck and brain were distended. The lungs were quite fresh in appearance and voluminous, but did not crepitate on pressure. They were dark purple in colour, engorged with blood, and sank in water. The right lung was marbled in appearance only over a small area of the middle lobe. The only portions which could be got to float were very small and obtained from this part of the lung. The left lung showed no marbling, but in several places at the margins and close to the fissure a few collections of air-cells could be seen to be distended, and very small portions of the lung containing these areas floated.

Perhaps the most striking feature of the case was that the portions of both lungs that floated could be made to sink by subjecting them to the moderate pressure of the weight of an ordinary dissecting-room wooden block.

The trachea and bronchi contained a small amount of frothy mucus. No disease was found anywhere in the body. A.A.P.

PUBLIC HEALTH.

New South Wales.

Dr. W. G. Armstrong, Medical Officer of Health, reports:—Deaths of residents in the metropolitan municipalities (Sydney and suburbs), exclusive of patients in the Gladesville and Callan Park Hospitals for the Insane, for the month of May, 1905, numbered 504. The annual death-rate indicated by this figure is 11·44 per 1000 of the estimated population, but a more correct death-rate is obtained by including the metropolitan proportion of deaths in all the hospitals for the insane and benevolent asylums (most of which are situated outside the metropolitan area, but receive many inmates from within the area), when the death-rate becomes swelled to 12·36 per 1000. This latter rate is by no means high, although higher than any recorded during the first four months of this year. The increased mortality has been chiefly in persons of advanced age, and the greatest contributing causes to the increase were diseases of the heart and blood vessels, Bright's disease, and diseases of the nervous system. Diarrhœal diseases (including diarrhœa, dysentery and enteritis) caused 46 deaths, compared with an average mortality in May during the five previous years of 42. The principal zymotic diseases, exclusive of diarrhœa, caused nine deaths, of which one was due to whooping-cough, one to diphtheria, and seven to typhoid fever. Cerebro-spinal fever and bubonic plague were each responsible for one death, and puerperal septic troubles caused five deaths. The deaths from phthisis numbered 38, or slightly below the quinquennial average for the month. Cancer, with 28 deaths, was also somewhat less fatal than usual. Bright's disease caused 38 deaths, an unusually high mortality from this class of disease, while diseases of the heart and blood vessels were also more fatal than usual, and caused 78 deaths. Infantile deaths numbered 138, equal to an infantile death-rate of 112 per 1000 births, which is above the quinquennial average for May (99 per 1000 births). The principal causes of infantile mortality were tubercular diseases, 7 deaths; prematurity, 20 deaths; developmental diseases, 42 deaths; bronchitis, 10 deaths; pneumonia, 9 deaths; and enteritis, 31 deaths. Notified attacks of notifiable infectious disease numbered 147, of which 41 were due to scarlet fever, 56 to diphtheria, and 50 to typhoid fever. Diphtheria has been slightly more prevalent than in May during former years, but the prevalence of both scarlet fever and typhoid fever was very much less than in previous years.

Vital Statistics.—According to a preliminary statement issued by the Acting Government Statistician concerning the vital statistics of New South Wales for 1904, the population at the end of the year (1,461,533) was increased by 29,869, of which 23,307 was due to excess of births over deaths. The births numbered 38,667. The birth-rate was higher than in 1903, but, with that exception, was the lowest during the last ten years. On the other hand, the death-rate is the lowest recorded for the past decade. This was almost entirely due to the decrease in the number of deaths from diseases to which young children are particularly liable. Although the death-rate in the case of tuberculous diseases remains about the same as during the last five years, the number of deaths from cancer shows a large increase. It is most strongly in evidence after 35 years of age, as 94 per cent. of those who died during 1904 were over that age.

Sanitary Condition of Wagga. — The Borough Council have discussed the report of the chief inspector of the Health Department, who recently visited the town to report regarding the outbreak of typhoid fever. Most of the inspector's recommendations were adopted. It was decided to have the town proclaimed a sanitary area, to adopt model by-laws under the Nuisances Prevention Act, to formally gazette the nightsoil depôt as such, to close the rubbish tip near the gasworks, to strictly enforce the provisions of the Public Health Act relative to disinfection of premises where infectious disease had occurred, to periodically forward samples of the town water supply to the Board of Health for analysis, and to adopt model by-laws relating to common lodging-houses. Since January last 101 cases of typhoid have been reported, of which 12 proved fatal. Last year, from January to April, there were 23 cases of typhoid reported, five proving fatal. Last year there were 23 cases of scarlet fever, but none of this disease was reported this year. The total number of deaths this year to date was 78, against 57 last year.

Victoria.

Infectious Diseases.—The number of cases of typhoid fever reported to the Board of Health for the fortnight ended June 3rd was 53, and two deaths, as against 59 cases and eight deaths for the corresponding fortnight of last year. Diphtheria showed a decline from 130 cases and nine deaths to 43 cases and four deaths, and scarlet fever from 101 cases and two deaths to 59 cases and no deaths. Dr. Norris referred to the return as intensely satisfactory, and attributed the falling off in the cases of diphtheria to greater care taken by State school teachers in sending home children affected with the complaint. He agreed with Mr. F. G. Wood that the poor remuneration received by health officers militated against the attainment of still better results.

Lung Disease in Mining Towns.—At the last meeting of the Board of Health the chairman, Dr. Norris, reported that the death-rate from phthisis in the metropolitan area had fallen from 20 to 13 per

10,000 of the population in the past fifteen years. In Bendigo the death-rate from the same cause was still a little over 22 per 10,000, having fallen from 27 to that figure in fifteen years. In Ballarat the mortality was less than in Bendigo, but it was still higher than in any other part of the State, except Bendigo. The death-rate in Ballarat in 1889 was 16 per 10,000 of the population, and the present figures showed no decrease. He suggested that the provisions of the Health Act which related to the compulsory notification of phthisis cases should be made to apply to Ballarat, Ballarat East, Bendigo and Eaglehawk, so that the councils would get information of all cases and facilitate the disinfection of all infected centres. A motion to this effect was agreed to, and made applicable also to Geelong, though the death-rate from phthisis there was reported to be low.

South Australia.

Central Board of Health.—At last month's meeting the secretary to the Department of Public Health, Queensland, wrote stating that Dr. Ham appreciated the board's kindly expressions in regard to his recent illness, and that he was now quite restored to health. The epidemic of dengue fever had been very widespread in Brisbane, and though it was abating it was still very prevalent at the northern ports. In reference to a petition by the local board for Mannum to be exempted from clause 115 of the Health Act, the chief inspector reported that the township was in a satisfactory sanitary condition. This was an important dairying district, and the industry would be exceedingly profitable if better arrangements were made for clean milking. Many of the dairies and utensils were clean, but as a rule the arrangements for milking cows were primitive. At most of the places visited, the cows were being milked without bails, in yards with soft floors, saturated with urine and littered with dung. The secretary was directed to forward a copy of the report to the Chief Secretary, and to point out the necessity it shows for the enforcement of some regulation with reference to ordinary cleanliness in connection with the dairying industry in this district.

Queensland.

Public Health.—Dr. B. B. Ham, Commissioner of Public Health, reports:—Seven cases of bubonic plague occurred at Ipswich during the week ending May 13th. The whole of these cases are directly traceable to one produce store, a very old and dilapidated shed, which has been demolished. Sick rats were discovered in the building, and dead rats were also found. Of these discoveries the Health Department was not notified, nor were the rats forwarded to Brisbane for bacteriological examination. During the week ending May 27th no case of plague occurred in Brisbane, Ipswich or Childers. For the period May 20th to June 3rd three cases of plague occurred in Brisbane. Reported May 15th.—A man, aged 26 years, who followed the business of a grocer at a shop in the city, where he also resided, died on the 15th May. Post-mortem examination proved that his death was due to plague. A schoolgirl, aged 13 years, who resided with her parents at Bulimba, died of plague on the 16th May. The customary precautions for preventing the spread of plague infection has been taken in connection with both cases. One case of plague occurred also in Brisbane. The patient, a boy, 14 years of age, resided with his parents at South Brisbane. His case was reported on the 31st ultimo, and he died at his home on the 2nd instant. Two hundred dead rats, too decomposed for examination, were found on May 24th on the premises of the store where the boy was employed. Last week a plague-infected rat was found there. Number of rats and mice destroyed, 957 rats, 161 mice; examined at Bacteriological Institute, 553 rats, 124 mice; infected, 4. Last infected rat, June 2nd, 1905. A death from plague occurred at Ipswich on May 31st. The patient, a woman, 28 years of age, resided at Ipswich and was employed as a tailoress in Brisbane. The result of investigation shows that there is no connection between this case and the seven cases of plague which occurred at Ipswich recently. The two remaining Ipswich patients will to-day be discharged from the Colmslie Plague Hospital, and the institution will thereupon be closed. 192 rats and 18 mice from Ipswich were examined at the Bacteriological Institute; none of them were plague-infected. A fatal case of plague occurred on May 16th at Childers, a town about 40 miles in a north-westerly direction from Maryborough. The deceased was an Italian, 38 years of age, and worked two doors from a produce store where seven plague-infected rats have been found during the week. One of the health officers of this department, an inspector, and a party from the rat exterminating gang, who were despatched to Childers, are still engaged in plague prevention operations there. No further cases have been reported. For the week ending June 10th the only case of plague reported in Queensland was at Maryborough, that of a girl aged 19. Medical experts are engaged at this town investigating the nature of a disease regarded as suspicious of plague. Five deaths have occurred in one family, and two nurses who attended the cases also succumbed. The result of these investigations will appear in a future bulletin.

The Government rat gang has been reduced from twenty to ten men. Mr. Airey, speaking on health matters recently, said that the cost of combating plague to the Government during this financial year had so far been £6000, and that such a rate of expenditure could not be continued.

Melbourne Medical Association.—At the request of the Melbourne Medical Association, Professor Allen, with the assistance of Drs. Adam, Bird, Bull, Ellis, Mollison, Maudsley, Moore, Stawell, and Syme, conducted a successful demonstration in the pathological museum at the Melbourne University on June 9th. The electric light has recently been installed in the museum, and the opportunity was afforded for medical practitioners to become acquainted with its resources. The museum now contains over 8000 specimens, all collected, classified and catalogued by Professor Allen. The demonstration was attended by 97 medical men, who were delighted with the high state of efficiency attained in the important departments of pathology and bacteriology. Among the visitors were Sir Thomas Fitzgerald and Professor Watson, of Adelaide.

Speaking recently with regard to the fears expressed that medical men who sign certificates under the Inebriates Act may render themselves liable to actions at law, the Victorian Under Secretary, Mr. Morrison, said that the Act provided for certificates being given in the same way as under the Lunacy Act. If they acted carefully and conscientiously, doctors had nothing to dread in giving certificates under the Inebriates Act.

Plague in New South Wales.

SYDNEY.

THREE further cases have occurred since the date of our last issue. (14) E.O., female, *æt.* 40, resided in Moncur-street, Woollahra, a dressmaker; attacked May 2nd; notified and removed to isolation May 13th. The yard of the house she occupied was divided by a wooden fence from that of the cow-keeper's from whose premises many plague-rats were taken (see last issue). (15) B.G., male, *æt.* 34, furniture buyer, lived at Paddington, about half a mile away from the preceding case; attacked May 13th; notified and removed May 15th. Had been at Newcastle till May 6th. (16) P.F., male, *æt.* 20, employed at a wholesale grocer's in Sussex-street; attacked May 21st; admitted to Sydney Hospital; notified May 23rd; residence, Paddington. No plague-rat has been taken in Sydney since May 4th, and it is reported that rats have begun to get very scarce along the Darling Harbour wharf line. The numbers destroyed still reach between 3000 and 4000 a week. Of these, about 800 are taken by the intelligence staffs, and are examined in the laboratory by Dr. Frank Tidswell. It thus begins to appear that the epizoötic has once more come to an end, or has been suppressed, after lasting from January 18th to May 4th. With the end of the epizoötic, the end of the epidemic also comes in view.

NEWCASTLE.

At this city four more cases of plague have been isolated. (9) D.S., male, *æt.* 17, butcher-boy; attacked May 11th; notified and removed May 14th. Resided at Waratah; employed by the butcher in Hunter-street, Newcastle, from whose premises many plague-rats have been taken, where case 8 was employed, and where, also, case 7 appears to have received the infection. (10) D.McL., male, *æt.* 35, storeman at a bond in Bond-street, Newcastle; resided in the neighbourhood; attacked May 19th; notified May 21st from Newcastle Hospital. This patient was employed in the grocery department of the large store. Immediately before his attack a considerable number of plague-infected rats had been taken from the store, several from the part of it in which the patient worked. (11) S.E.T., male, *æt.* 19, employed and lived at the railway refreshment rooms, Newcastle; attacked May 26th; notified from Newcastle Hospital May 27th. A plague-rat had been caught in the refreshment rooms on May 6th; outbuildings were overrun with rats; a large rubble drain which opened on the foreshore at no great distance ran under the footpath adjoining patient's workplace, and from this part of the foreshore many plague-rats had been taken. (12) G. St. C.W., male, *æt.* 45, a carpenter, resided in King-street; last employed Hunter-street West (in neighbourhood of the place of infection of cases 7, 8, and 9); attacked May 29th; notified from Newcastle Hospital May 30th. (13) H.J., male, *æt.* 17; attacked May 30th; notified from the General Hospital June 4th; employed as horse-tender at the Australian Agricultural Company's Sea Pit, off Darby-street. The number of rats offered in return for payment (3d) has not exceeded between 500 and 600 a week from the beginning, while the intelligence staff has returned an additional 150 to 200. The former, as well as the latter, have been examined by a laboratory assistant, under supervision of the Medical Officer of Health (Dr. R. Dick), and the proportion in which plague has been identified has exceeded previous experience. It is feared that circumstances already alluded to—the state of buildings, the large number of abominable, insanitary drains and sewers, the construction of the wharf-line, and the like—will render suppression of the epizoötic a lengthy and difficult business. The returns of rats paid for betoken no energy on the part of the inhabitants, and even the small number offered are believed to be gathered in large proportion from neighbouring municipalities, where, although it is a good thing to destroy their rats, no plague-rats have as yet been encountered.

BALLINA.

More plague-rats have been found in this town, at a produce store situated in the same block with and not far from the bank at which case 3 occurred. (4) M.C., female, *æt.* 21, married; attacked May 28th; notified and removed to the General Hospital May 30th. With her husband kept a small drapery store in River-street, where they also lived; this was next door to a produce store at which many plague-rats had been identified on May 17th and 18th, both buildings having been of wood. Similar conditions to those just adverted to in the case of Newcastle exist here, though on a much smaller scale, and appear likely to render complete extermination of the rats more difficult than was expected.

LISMORE.

The cases mentioned in our last issue have been bacteriologically established by the Assistant Medical Officer of the Government (Dr. R. J. Millard), in charge on the spot. The following have also been notified:—(6) J.M., male, *æt.* 22; attacked May 7th. He was employed at that store from which cases 1, 2 and 4 came, and where case 3 in all probability received the infection while visiting as a customer. (7) D., one of the gangers sent up to superintend cleansing operations, was attacked May 12th. (8) P.S., male, *æt.* 21, shopman; attacked May 30th; notified and removed May 31st. On May 30th a dead rat had been found in the grocery department of this store, where the patient worked. It was burnt, and nothing said of it till the patient had been attacked.

HOSPITAL INTELLIGENCE.

Home for Incurables, Adelaide—At the twenty-sixth annual meeting of subscribers held last month the Chief Secretary (Hon. J. Vardon) presided. The annual report stated that the total receipts from all sources, exclusive of £125 on endowment account, and £27, portion of bequests, transferred to reserve fund, amounted to £2435 2s 2d. The expenditure for the year was £2761 19s 1d, being an excess of expenditure above receipts of £326 16s 11d. The amount received for annual subscriptions was only £371 6s 6d, being £140 16s 8d less than in 1903; there is also a falling off in the amounts received as donations. The number of annual subscribers, inclusive of banks, corporations, district councils, and institutions, is only 196. Unless a considerable increase in the revenue takes place it may be advisable to seriously consider the necessity of curtailing the expenditure by a reduction in the number of the inmates. At the date of last year's report there were 103 patients in the home. During the year 18 have died, 3 have left, and 21 have been admitted; the number at present in the home is 103. There are 18 eligible applicants waiting admission. Six beds are at the disposal of the Government for patients from the Destitute Asylum, and five beds are endowed. The cost of the maintenance of the institution is at the rate of £26 16s 3d each patient, or about 10s 4d per week. This includes not only actual food, but all charges incidental to the maintenance of the home. The bequest of £1000, under the will of the late Mr. J. H. Angas, less £100 probate duty, has been received. A condition is attached to the bequest that the money is to be applied to the enlargement of accommodation for patients; it will therefore have to be set aside for that purpose. The medical officer (Dr. T. W. Corbin), the matron, nurses, and staff generally are commended for their faithful services to the institution.

Queen Victoria Homes for Consumptives, New South Wales.—On June 3rd the State Premier officially opened the new wing to the sanatorium recently erected at King's Tableland, Wentworth Falls. This home for consumptives comprises a group of buildings built some distance back from the Burragorang-road, on a site possessing a gentle slope. The administrative block is a centrally-situated building, adapted for the matron and nursing staff, who have their sitting and bed rooms provided under its roof. The patients' dining and sitting rooms are immediately at the rear of the administrative block. These are lofty and well-lighted rooms, and are so constructed that when all doors and windows are open the atmosphere is practically the same to the inmates as in the open air. At the rear of this block is the serving-room, the kitchen, scullery, stores, bed and sitting rooms for servants, and isolated from these, but approached by covered ways, are the dairy and meat houses. Arranged as wings on either side of the administrative buildings are the ward blocks and shelters. These comprise five large six-bed wards, two two-bed wards, and two one-bed wards, with lavatories, nurses' rooms, cloak-room. In suitable positions about the ground are the shelters. As there is a considerable rise of the land at the rear, with a large belt of trees upon it, the wards are well protected from the west, the quarter from which strong winds come. The medical superintendent has a separate cottage near the approach to the main entrance of the administrative buildings. The stables and cowhouses and piggeries and the large barn are situated on the east side of the Burragorang-road, some distance from the wards. The artificial lighting is at present by lamps, but it is hoped that some day an electric plant may be installed for light and power for pumping, etc The water supply is by gravitation from a dam on the hillside. A septic tank system has been installed. The total number of beds provided for is 44. The buildings have been erected in two portions; three of the six bed wards and the two single-bed wards were first built. The remainder, consisting of the two six bed wards and the two two-bed wards, together with the kitchen block and shelters, have recently been completed. Messrs. H. C. Kent and G. Sydney Jones were the joint hon. architects. The scheme, as far as land and buildings, etc., are concerned, has cost about £10,000

Melbourne Hospital.—In order to cope with the growing requirements at the Melbourne Hospital for beds for surgical cases, the committee of management have adopted the recommendation of the house committee to utilise the old lock ward, No. 7, and refurnish it with six beds. The chairman stated that the question of expense had been fully considered, and the conclusion had been arrived at that six more patients would mean practically nothing, as the food they would need would make no difference in an establishment where so many persons had to be provided for. The furniture was already in the hospital, and the only extra expense would be wages. These six beds would cost £35 each—just half the amount of the average cost per bed, £70.

Royal Alexandra Hospital for Children, Sydney.—At the twenty-fifth annual meeting of the Royal Alexandra Hospital for Children it was stated that the institution had now the sum of £15,000 to raise, which the management hoped to get in during the present year. The total amount received during the past 12 months from various sources was £3605 4s 5d, in addition to which the amount received by way of subsidy from the Government was in excess of that received the previous year, though a portion of this was to meet special expenditure in connection with the diphtheria cottage. Included in the subscriptions was £20 from her Majesty the Queen. During the year 619 cases were treated at the institution, with a mortality of 8·8 per cent. In the out-patient department at Valentine-street the work was stated to be increasing rapidly, and the time is not far distant when another story will have to be added to the present building. In this department there were 27,481 cases treated, as compared with 15,638 the previous year. In the diphtheria cottage 154 patients were treated. It is expected that the new building will be completed by the middle of next year. No contract, however, had been entered into for the erection of the nurses' home, which was estimated to cost about £7000. The furnishing and fitting up of the building already in course of erection will add some £4000 to the cost, thus bringing the total expenditure on the buildings, including the nurses' home, to £35,000. Towards this £20,000 has been subscribed, and a vigorous effort is now being made to raise the remaining £15,000 during the present year.

Marrickville Cottage Hospital, N.S.W.—Last month his Excellency Sir Harry Rawson visited Marrickville for the purpose of declaring open the new wing at the Cottage Hospital. The president warmly welcomed the Governor, and said the Marrickville Hospital was first thought of 10 years ago. The foundation stone was laid by Viscount Hampden in April, 1897. The building was opened by Earl Beauchamp on June 10th, 1899. That building then contained ten beds and two cots. Three years later an isolation ward was built for the treatment of infectious diseases; also an operating theatre, the old theatre being converted into a living room for the nursing staff. The new wing, just completed and fully equipped, contained eight beds and a cot, which thus increased the accommodation in the hospital to 19 beds and two cots. Since the institution was opened six years ago 924 indoor patients had been admitted, of which 727 had been discharged as cured and 120 relieved. The number of outdoor patients treated was 863. The hospital was free from debt, and £400 remained as an investment. When they got this year's subsidy they would be even better off. They also owned the cottage adjoining the building, from which they received a fair rental. The president announced that the collection that afternoon amounted to £42.

Infectious Diseases Hospital, Melbourne.—The committee of management of the Infectious Diseases Hospital has informed the Melbourne City

Council that metropolitan municipal councils which did not originally join in the maintenance of the hospital may join the seven municipalities which have united for this purpose on the following conditions:—That payment be made of their proportion of current expenses according to valuations of councils contributing, and that the share of the money already expended by the seven municipalities which would have been payable by the new municipalities on the basis of valuation (less any moneys already paid on account of patients) be now paid by them, and when so paid be credited to the seven councils. Any municipality so joining shall be allowed one representative on the committee of management of the hospital.

Victorian Eye and Ear Hospital.—The State Governor, Sir Reginald Talbot, and Lady Talbot recently visited the Victorian Eye and Ear Hospital, in East Melbourne, and were shown over the various wards. A visit was first paid to the out-patient department, which was overflowing with cases requiring temporary relief, and the Aubrey Bowen wing for resident patients was then inspected. Great interest was displayed in the Haab electro-magnet, which the committee 18 months ago imported from New York, at a cost of £80, to help in the treatment of those cases where chips of iron had become deeply embedded in the eye. Drs. J. P. Ryan and J. W. Barrett, who demonstrated its usefulness, declared that the patients who required it were usually workers in iron foundries. The hospital committee has for long recognised that extension of its out-patient ward is very desirable, for last year 29,000 visits were paid to the hospital, and recently 140 out-patients were present. They proposed to erect a new ward on a vacant block of land alongside the present building. Mr. Bent a few months ago promised £1500 towards the building fund, but as the land is owned by the Metropolitan Board of Works there is a danger that it will be lost before the large amount of money necessary for its purchase can be raised.

Sydney Hospital.—At the monthly meeting of the board of directors of the Sydney Hospital accounts for the month of May, amounting to £1886 15s 4d, were passed for payment. Intimation was received from the Chief Secretary that the following new by-law has been approved by the Governor-in-Council, viz.:—"Every benefactor of £50 or upwards, contributed at any one time, or within 12 months, or contributed in more than one sum, shall, if approved by the board, become a life governor." Leave of absence for a period of 12 months, as from July 31st proximo, was granted to Dr. Jamieson, to enable him to visit England. His Excellency the Governor forwarded an extract from the proposals of the entertainment committee of the Victoria League (England), which was received with thanks. The report of the sub-committee appointed to inquire into the prices paid for the various hospital requirements was read and received. The report showed that in every department fair marketable prices were being paid. The report of the sub-committee appointed to inquire into the question of substituting female for male labour in the main kitchen was read. In accordance with the recommendation of the sub-committee it was decided not to make any change at present.

Queen's Maternity Home, Adelaide.—At the fourth annual meeting of subscribers to the Queen's Maternity Home, the report submitted stated that the receipts for the 12 months which ended on April 30th last have fallen short of the payments by £44 8s 7d. This was due to the closing of the home in December, owing to the appearance of eye trouble concurrent with the new building operations, which filled the place with dust, to the detriment of the patients and the inconvenience of the staff. The dust and noise made it necessary to close the institution until the building was finished. In July last Mr. and Mrs. R. Barr Smith generously offered to contribute a sum of £1000 towards the completion of the north wing, the cost of which was estimated at £1300. This work had been satisfactorily completed. A large and well-designed delivery ward, an operating theatre, sterilising-room, proper nurses' quarters, and considerable additional accommodation for patients have been added. A further expenditure of about £187 will be necessary to complete the fittings and furnishings of the new portion, so that the total cost will be £1487. Of this amount £1200 has been liquidated, and a balance of £287 still remains to be paid. For the 12 months ended April 30th last 156 patients were admitted, and 145 infants were born. No deaths have occurred in connection with maternity treatment. During the year six nurses have passed through the home, five of whom gained their certificates (one did not complete her term), and 12 medical students have attended for instruction. On March 23rd last, after having been closed for about three months, the building was reopened by Lady Le Hunte, who also opened a new ward, which had been named the "Barr Smith Ward," in memory of generous benefactors. In December Dr. A. H. Bennett was appointed honorary ophthalmic surgeon to the home. Sir Jenkin Coles resigned his position on the general committee, and Dr. A. P. Evelyn O'Leary was appointed in his place.

In buying absorbent wool doctors should not overlook the following facts—the purer the wool, the more economical it is. But what constitutes a first-class absorbent wool? Its absorbent qualities, being chemically pure, and being of long staple. The impurities in the wool consist of mineral and also vegetable matter, which have been carried mostly by dust on to the cotton. A good deal of it comes out or is lost in the bleaching, but a very fair percentage remains in it, which, when going through the carding machine, remains behind. Only the pure fibre can pass through the fine teeth of the carding machines. These little bulbs which remain behind and which contain all these impurities are by some manufacturers spun up again into absorbent wool. It is generally spun, and the refuse is used up and put between two layers of a longer staple cotton. These bulbs can be made absorbent enough, especially if they are treated with ammonia, and on account of being heavy they sink very often quicker than a really good class of absorbent wool, which is kept floating by its long staple and by its great lightness. The real test of absorbent wool is to weigh an ounce of cotton wool and weigh the quantity of water which it is able to absorb. Thus one comes to a correct idea of the absorbent qualities of a wool. The impurities are easily found out by burning a certain quantity of wool and weighing the remains, being careful to light the wool once only, and then weigh the remains. Should the wool require to be set alight several times, it is mostly a proof that it has been made absorbent by way of ammonia, and the ammonia has not been taken out afterwards. Every ounce of Max Arnold's Absorbent Wool No. 1 absorbs 4 oz. more water than the next best wool in the market, and 8 oz. to 10 oz. more than the ordinary absorbent wool.—G. ARNOLD, Sole Agent, 191 Clarence-street, Sydney—[ADVT.]

The Cottage Homes, Adelaide.—**At the annual meeting in connection with the Cottage Homes for the aged and infirm poor and widows the committee reported that the balance-sheet and financial statement for the year ending March 31st, 1905, showed—Receipts for the year, £261; balance from last year, £133; expenditure, £269; bank balance, £125; endowment funds, £2271; premises account, £13,639; total amount of property, £16,635. There had not been any increase in the number of Cottage Homes during the year, though, had there been, they would have been quickly filled, as the list of applications awaiting admission was a very long one. Outside the incorporation the need for cottage homes was recognised, and in different suburbs homes were being erected (both by private individuals and corporations) to supply the great need; and although these homes were worked under a somewhat different system, a small rental being charged, they were all tending in the same direction, namely, the housing of the respectable poor, thus preventing many from becoming a burden on the State, and providing them with the comforts of home. A good deal of money had to be expended in painting and repairs at Mitcham, Prospect, and Brompton Park, and in connecting the Vosz Homes, Glenelg, with the deep-drainage system. A long-felt want had been supplied by having water taps put in front of the homes, as well as the back, thus saving the old folks the labour of carrying water for their gardens, which are a great source of pleasure and interest to them. The "Jean Cottages," Elgin, which were presented last year by Mr. Joshua Gurr, were now all occupied by suitable tenants. The homes were detached and semi-detached, and stood in nice gardens, which had been planted with fruit trees, and were generally well cared for and turned to account by the inmates.**

Minda Home for Weak-minded Children, Adelaide.—**The seventh annual meeting of the friends of Minda was held last month. The committee's report stated that there were 28 pupils on the roll, but the committee had to decline many applications on behalf of epileptics, whom it was impossible to accommodate, while the selection from applications on behalf of ordinary weak-minded children had to be restricted within narrow limits. A substantial building fund had been established, but the committee still felt that it would be unwise to undertake the great responsibilities which would follow the building of the new home at Aldgate until a further sum of from £1000 to £1500 was raised. A contribution of £500 had been given to the fund by Mr. T. R. Bowman; the Government had also given a grant of £200. The annual fair last year yielded with donations a net sum of £429. The matron's report stated that, with the exception of one child, who suffered from a severe scalding accident, the health of the inmates had been excellent, due no doubt to their open-air life. The year's work had been marked by steady progress, and the mental vigour of the children was awakened by a process of entrusting them with small tasks to perform. The teacher's report also speaks of the excellent work done, and states that physical drill still occupied a prominent place on the school time-table, and was always taken, weather permitting, out of doors. Industrial usefulness was the aim of all the work rather than scholastic attainments, and elementary brushmaking and cane basket-making was taught in addition to the very valuable occupations of the kindergarten, which formed such a splendid introduction to all kinds of manual work.**

Brisbane Hospital. — **A special meeting of subscribers to the Brisbane Hospital held on June 9th appointed a deputation to wait on the Treasurer to further represent the impossible position in which the committee of the institution find themselves. Mr. Oxley explained the financial position, the crux of which is that at the end of the present month there will be a shortage of £6100, which will probably be increased to £9000 by the end of the year. It was decided by the meeting to lay before the Treasurer a resolution to the effect that the best mode of supporting the institution is the voluntary system, with a vitalisation of the contributions by a Government endowment of £2 for every £1 privately raised. After a discussion of nationalisation, and special taxation methods of providing the means for hospital support, the meeting unanimously came to the decision above mentioned. The Treasurer has since declared that there is no chance of reverting to the old endowment of £2 for £1 subscribed.**

Dunedin Hospital, New Zealand.—**At a meeting of the Dunedin Hospital trustees, a deputation from the medical staff, consisting of Drs. Colquohoun Batchelor, Barnett, Closs and G. McDonald, urged the necessity for a new ward, and pointed to the continued advance in medicine and surgery. The relation of the hospital to the medical school made it imperative that the hospital should be up to date in every respect. It was said one member of the profession would guarantee to raise £1000 if £3000 could be otherwise raised. It was stated by the chairman that a new pavilion would cost £10,000. It was decided to call a public meeting to deal with the matter.**

St. Joseph's Hospital, Auburn, N.S.W.—**The annual report states that during last year 260 patients were admitted, of whom 248 were discharged and 22 died. Outdoor relief was granted to 490 separate individuals. The debt on the institution had been reduced by £400, and now stood at £3700. Dr. Kerr succeeded the late Dr. Harrison as medical officer, and Drs. R. A. Fox and Sheldon have been appointed assistant medical officers.**

PRACTICES FOR SALE.

Sydney: Suburban prac. to be disposed of for value of residence, viz., £2750, which is a recent valuation by a city firm. Prac. has little or no opposition. Established 15 years.

Sydney: A leading suburban prac. to be sold with residence. Capital required, £2200. A great chance.

N.S.W.: Prac. in good town, wealthy district, est. 44 years, present owner 15½ years, predecessor 20 years. Cash take always over £1000. Appts., £324. This is in a pastoral and farming district, 865 ft. above sea level. Temperature: Summer, 72 deg.; winter, 55 deg. Town has a hospital. We know this prac. well, and recommend it. Price, £600.

N.Z.: Unopp. prac. returning £800 to be sold with a residence that recently cost £680. Price for both, £500. Prompt buyer wanted.

Tas.: Prac. in city of Launceston. Cash take £600, with sound foundation for large increase. Appts., £200. Price, £150. Strongly recommended.

N.B.—Doctors wanting practices in any of the States, Tasmania, or N.Z., would do well to send for lists.

MR. F. W. LOXTON, MEDICAL AGENT,
16 O'Connell-street, Sydney.—[ADVT.]

Messrs. Parke, Davis & Co. direct attention to their advertisement on page 12.—[ADVT.]

MEDICAL NOTES.

Charitable Donations and Bequests.—Mr. Edward Ross Fairfax, of London, has contributed the sum of £1000 for the endowment of a cot in the Royal Alexandra Hospital for Children, Sydney. Among the contributions recently received by the treasurer of the Melbourne Hospital were a cheque for £900 from the trustees of the estate of the late Mr. T. J. Sumner and bequests from the following:—The late Henry Adams, £360; the late Mr. Edward Green, £195; the late Mr. William Fox, £96 16s: and the late Margaret Hamilton, £95.

University of Sydney Science Society.—At the annual meeting of the University Science Society, held in the Geological Lecture Theatre at Sydney University, there was a large attendance of members and friends. The retiring president (Dr. J. R. Hill) said the aim of the Society was to draw within its sphere of influence men pursuing widely different courses in science, and varied lines of scientific work. Properly conducted, the society should have a potent influence in fostering the development amongst its members of that spirit of research, that altitude of mind, characteristic of the seeker after truth, without which science could make no true progress, and which was no whit less essential in the conduct of the ordinary affairs of life. Dr. Hill then delivered a highly interesting and instructive illustrated lecture, entitled "Reflections on the Origin of Mammals," in the course of which he made known the results of much of his own research work. He was awarded a hearty vote of thanks on the motion of Dr. Sandes, who said the society had reason to congratulate itself upon having had as its first president a dstinguished scientist like Dr. Hill, whose fame was world-wide.

Bovril.—A reviving and sustaining cup of "Bovril" is prepared in one minute with the aid of a little boiling water. This preparation is widely used not only for providing refreshment quickly but also as an addition to stews, curries, hashes, etc., to which it gives both nutriment and an agreeable flavour. Some of the leading athletes warmly praise the valuable properties of this preparation, and, among many, mention may be made of Montague Holbein and Alfred Shrubb, who both train on Bovril. Holbein is well known for his repeated attempts to swim across the English Channel, and Alfred Shrubb is equally well known as England's long-distance runner. Bovril is also useful as a pick-me-up at all hours and seasons, and as a stimulant to ward off colds, chills and epidemic diseases.

Treatment of Consumptives in Victoria.—The board of management of the Ovens District Hospital has finally decided to reject the Premier's offer that if the hospital took 26 consumptive patients he would make a grant of £50 for each patient yearly. As the climate of the district is suitable for the cure of consumption, it is thought that the Government should erect a hospital in a position somewhere between Beechworth and Stanley, which has been recommended by Dr. Norris, chairman of the Board of Health.

St. John Ambulance Association.—The annual meeting of the Victorian Branch of the St. John Ambulance Association was held last month. The balance-sheet disclosed a balance credit of £160 0s 6d, and the report stated that the ambulance waggon turned out to 963 calls, and first aid was rendered in 106 cases prior to the removal of the injured to the hospital. The distance travelled was about 5500 miles. One hundred and two calls could not be attended to, as the waggon was out attending to other cases. A second waggon had since been built, and this would enable all calls to have attention in future. Reference was made to the importance of having ambulance classes established in connection with schools, mechanics' institutes, technical colleges, and other associations. The report and balance-sheet were adopted, and the following officers were elected:—President, Dr. J. E. Neild; chairman of council, Mr. J. Blyth; treasurer, Mr. J. C. Anderson; council, Drs. Chas. Bage, J. W. Springthorpe, R. L. McAdams, Surgeon-General Williams, Dr. Horne.

Hospital Saturday Fund.—It was announced at a meeting of the executive committee of the Sydney Hospital Saturday Fund that the receipts for the year ending May 31st amounted to £4810. It was resolved to allot for distribution the sum of £4400, this amount being the same as that distributed last year. The following institutions, in addition to those which participated last year, were selected to share in allotment on the present occasion:—Royal Hospital for Women at Paddington, the Sydney Dental Hospital, and the Sacred Heart Hospice for the Dying, making in all 26 participating institutions.

University of Sydney.—At the last monthly meeting of the Senate of the University, on the recommendation of the chairman of the Board of Dental Studies and the dean of the Faculty of Medicine, it was resolved to make the following arrangements for the studies of the fourth year in dentistry:—(1) That a clinic on diseases of the mouth be held once a fortnight at the outpatients' department of the Royal Prince Alfred Hospital, such clinics to be conducted by Drs. Charles MacLaurin, J. H. Nolan, and J. Morton. (2) That Dr. Ernest Deck be invited to deliver a special course of lectures and demonstrations on porcelain work. (3) That other gentlemen be invited to give a clinic at the Dental School on some special branch of mechanical or clinical dentistry. Mr. A. A. Palmer, M.B., was appointed to act as co-examiner in anatomy for the forthcoming examinations. On the recommendation of the Faculty of Science, it was resolved that the application of Mr. Ellis Hyde, B.Sc., Victoria University, for admission *ad eundem gradum*, be granted.

Surgical Appliance Aid Society.—The annual meeting of the N.S.W. Surgical Appliance Aid Society was held at the Town Hall on June 12th, Sir James Graham presiding. The annual report stated that the year's work had shown more and more the value of such an institution to the community. The number of poor people in a large city who were disabled in a manner that prevented them from earning their living without the aid of a surgical appliance was necessarily large. The society aimed at providing such persons with proper appliances to enable them to make their deformity and physical afflictions more bearable. Careful inquiry, the report continued, was made as to the means both of the patients and of their relations, and if they could afford to make some gradual repayments for the appliances, the society expected and encouraged them to do so. The society closed the year with a balance in hand of £147. In moving the adoption of the report and balance-sheet, Sir James Graham said it was the seventh year of the society's existence.

The work showed that they were fulfilling an important mission in the community, and were doing a work that no other society undertook. Sir James Graham, M.D., was re-elected president, and Dr. John Harris and Dr. R. H. Jones hon. medical officers.

Auckland Hospital.—The new operating theatre at the Auckland Hospital will be ready for use in the course of a few weeks. Experts who have visited the hospital state that it will be one of the most complete and best-equipped theatres in the colony.

OBITUARY.

HENRY GOLDSTEIN, M.B., Ch.B. (Edin.),

younger son of Rabbi Goldstein, of Auckland, died at Crook, Newcastle-on-Tyne, at the age of 23½ years. He was born in Auckland, and educated at the local Grammar School and University. After some time spent in the Auckland Hospital he went about six years ago to study surgery and medicine at Edinburgh, where he took second-class honours in surgery and first-class honours in midwifery and diseases of women and children. Last year he also gained the class medal for medicine, and he was to have returned to Edinburgh to go in for the D.P.H. at Cambridge, and then to return to New Zealand.

WILLIAM EDWARD MOORE, M.D.

We regret to record the death, last month at Wellington, N.Z., of Dr. William Edward Moore, medical officer of H.M.C.S. Iris. The deceased, who was only 36 years of age, had been ill for some weeks, and as he was growing worse he was removed to a private hospital, where he was attended by Dr. Lewis. His illness, however, terminated fatally.

FREDERICK SPICER, M.R.C.S. (Eng.)

The death is reported from London of Dr. Frederick Spicer, who was formerly a prominent citizen in Adelaide. He was born in 1820, was one of five brothers, four of whom were in the medical profession. He came to Australia about the time of the gold fever, and in the fifties of last century practised at St. Kilda, near Melbourne. Then he removed to Adelaide early in the sixties, taking a position as house surgeon of the hospital, afterwards purchasing the practice of Dr. Taylor at Kensington, in which he was succeeded by the late Dr. Benson. After practising in conjunction with Dr. Davies, formerly of Clare, in the city for a few years, Dr. Spicer returned to London in 1875. He was a member of the Adelaide City Council for some years, and at one time represented Sturt in the House of Assembly. He left two sons, both of whom are doctors. The elder is Dr. R. H. S. Spicer, a specialist in nose, throat, and ear affections, in Cavendish-square, London; the other is in the Royal Navy. His only daughter is married to Mr. Roques, a leading London architect.

PERSONAL ITEMS.

Dr. T. P. McInerney, being the only candidate nominated, has been elected Warden of the Senate of the Melbourne University for the ensuing year.

Dr. Walker, from Orange, New South Wales, has commenced practice in Auckland.

Dr. Hendry, of Invercargill, N.Z., has left on a twelve months' trip to the Home Country.

Dr. Leahy, who resigned his position in the Napier Hospital, has returned from Sydney, and commenced private practice in Napier.

Dr. A. R. Falconer has returned to Dunedin, N.Z., after two and a half years' residence in London, during which time he obtained the diploma of public health from the London Colleges.

Dr. Wheeler, of Owaka, has been compelled to give up his practice in that district, owing to ill-health. Dr. McKibbon, who has lately been acting as assistant to Dr. Butement in Masterton, succeeds Dr. Wheeler at Owaka.

Dr. John Malcolm, late assistant to Professor Schäfer, Edinburgh, arrived in Auckland by the Sonoma on April 28th, and proceeded to Dunedin to take over the chair of physiology at the Otago University. We regret that in a former issue we stated that Dr. John D. Malcolm, of Portman Square, London, who is a gynæcologist, had been appointed to the chair.

Dr. Harrie Cox, of Warren, N.S.W., has been installed Master of the local Masonic Lodge.

Dr. McDonnell, of Forbes, N.S.W., has been elected president of the newly formed musical and dramatic society in that town.

Dr. Thomas, of Manly, Sydney, has been president of the Manly Cricket Club for the past season. At a concert recently given by the residents of Manly he was presented with a handsomely framed photo of all the players.

Dr. A. Horace Gibson, senior resident at the Brisbane Hospital, has resigned his post to take service under the Pacific Cable Board at Fanning Island.

Dr. Love, of Brisbane, has been assisting Dr. Baxter Tyrie in his investigation into the recent outbreak of illness at Maryborough.

Dr. Ralph Worrall will remove his consulting rooms to 183 Macquarie-street, corner of Hunter-street, Sydney, on and after July 1st.

Dr. Rutherford, who has done valuable work on radium, was a passenger by the R.M.S. Sierra from San Francisco to Auckland. After a short stay in New Zealand he will visit Sydney.

Dr. P. Bollen, of Port Adelaide, S.A., has recovered from his recent illness, but he intends to take a few days' rest in the north before resuming his practice.

Dr. R. H. Marten, of Adelaide, Mrs. Marten, and their family have returned from abroad by the India. They were absent for a year.

Dr. J. F. Harris, of Gawler, S.A., left for Sydney last week to proceed to England by the steamer Nairnshire as ship's surgeon.

Dr. H. G. Bennetts, late of Temora, N.S.W., is leaving Sydney by the R.M.S. Mongolia on June 24th.

Dr. Turkington, late of Merriwa, N.S.W., has resumed practice at Waverley, near Sydney.

Dr. Sydney Jamieson, lecturer in medical jurisprudence at Sydney University, has been granted 12 months' leave of absence. Dr. R. H. Todd has been appointed to act as his substitute.

MEDICAL APPOINTMENTS.

VICTORIA.

The following gentlemen to be Public Vaccinators for the districts set opposite their names respectively, viz.:—

Cameron, William Johnstone, M.B., Mildura, North-Western District, *vice* Otto Louis Moritz Abramowski, M.D., resigned.

Gray, Colin, M.B., Midland District, during the absence on leave of John O'Neill, M.D.

Healy, Robert Garthy, M.B., Apollo Bay, South-Western District.

Hope, William Waugh, M.B., to be Acting Officer of Health for the Shire of Colac during the absence on leave of William Henry Brown, M.R.C.S.

Ingham, James Herbert Ivey, M.B., North-Western District, *vice* Thomas Stang, L.R.C.P., resigned, and to be Acting Health Officer for the Shire of Dimboola, *vice* Thomas Stang, L.R.C.P., resigned.

Lyons, Alexander, M.R.C P., Murtoa, North-Western District, during the absence of Heinrich Rabl, M.D., on leave.

McLean, John Samuel, L.R.C.P., to be Acting Officer of Health for the Shire of Rosedale (Rosedale and Denison Ridings), *vice* Lyster Andrew Nolan, L.K.Q.C.P., resigned.

Secoombe, Samuel Herbert, M.R.C.S., North-Western District.

Spring, John Patrick, M.B., North-Western District, *vice* Louis Edward Delmege, L.R.C.S., resigned.

Spring, William Ambrose, M.B., to be Acting Officer of Health for the Shire of Ballarat during the absence on leave of Charles Arthur Courtney, L.R.C.P.

QUEENSLAND.

Morgan, Thomas Howard, F.R.C.S. (Edin.), to be Honorary Assistant Surgeon to the Hospital, Brisbane.

WEST AUSTRALIA.

Beadel, Algernon James, to be Resident Physician, Kalgoorlie Hospital.

Triado, Antonia J. J., to be Officer of Health at Lawlers, *vice* W. S. Myles, resigned.

NEW ZEALAND.

Hoskins, A., to be Hospital Surgeon, Masterton Hospital.

Ross, W. S., to be Hospital Surgeon, Masterton Hospital.

Shand, W. H., to be Public Vaccinator for the district of Wellington.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been duly registered as legally qualified Medical Practitioners in their respective States:—

NEW SOUTH WALES.

Forbes, Francis Courtenay Sutherland, M.B., M.S. (Aberd.), 1889.

Retallack, Cyrus, L.R.C.P. (Edin.), 1896; L.R.C.S. (Edin.), 1896; L.F.P.S. (Glas.), 1896.

Stead, Dryden, L.R.C.P. (Lond.), 1892; M.R.C.S. (Eng.), 1892.

For Additional Registration.

Browne, Claude Seccombe, Ch.M. (Syd.), 1905.

Jenkins, Edward Johnstone, F.R.C.P. (Lond.), 1904.

WEST AUSTRALIA.

Mason, William, M.B.. B.S. (Syd.), 1904.

BIRTHS, MARRIAGES AND DEATH.

BIRTHS.

BOBART.—May 4th, at 20 Roslyn Gardens, Sydney, the wife of Staff-Surgeon Bobart, M.D., R.N.—a daughter.

COX.—May 30th, 1905, at Wallsend, N.S.W., the wife of F. H. Cox, M.B.—a daughter.

McCLELLAND.—May 31st, 1905, at 1 Erskineville-road, Newtown, Sydney, to Dr. and Mrs. Walter C. McClelland—a son.

MARRIAGES.

CREED—WILLIAMS.—May 12th, at St. James' Church, Sydney, by the Rev. Carr Smith, John Mildred Creed, M.L.C., to Agnes, widow of the late James Williams, of Queensland.

HARPER—JONES.—April 26th, at St. Anne's Church, Strathfield, Sydney, by the Rev. H. J. Rose, M.A., assisted by the Very Rev. Archdeacon Gunther, uncle of the bride, George C. Harper, M.B., etc., eldest son of Principal Harper, St. Andrew's College University, to Ethel Maude, fourth daughter of John B. Jones, solicitor, Hatherley, Strathfield.

MARSDEN—HAWKE.—April 26th, at Christ Church, Kapunda, South Australia, by the Rev. Geo. Griffiths, W. Cecil Marsden, L.R.C.P. and S. (Edin.), youngest son of G. M. Marsden, Melbourne, to Stella, youngest daughter of the late H. B. Hawke, Kapunda.

PARKER—DUCKER.—At Oswin, Petersham, Sydney, on May 17th, by the Rev. W. Woolls Rutledge, assisted by the Rev. J. E. Carruthers, Joseph Parker, L.R.C.P. (Edin.), to Evelyn Mary Ursula, eldest daughter of John Ducker, "Oswin," Regent-street, Petersham.

DEATH.

SPICER.—May 7th, at Tufnell Park, London, Dr. Frederick Spicer, late of Adelaide, in his 85th year.

BOOKS RECEIVED.

Transactions of the Medical Society of London. Vol. 27.

First Aid to the Injured and Sick. An Advanced Ambulance Handbook. By F. J. Warwick, M.B (Cantab.), M.R.C.S., L.S.A., and A. C. Tunstall, M.D., F.R,C.S. (Edin.) Third and revised edition. Bristol: T. Wright & Co. 1903. Price, 1s net.

Transactions of the Association of American Physicians, Nineteenth Session, held at Washington, D.C., May 10 and 11, 1904. Vol. xix.

Introduction to Discussion on Prostatectomy at the Medical Society of London, May 8th, 1905. By Reginald Harrison, F.R.C.S

Laryngeal Phthisis or Tubercular Laryngitis. By R. Lake, F.R.C.S., and H. Barwell, M.B. (Lond.), F.R.C.S. Price 6s 6d. Second edition. London: Baillière, Tindall and Cox. Sydney: L. Bruck.

Golden Rules of Medical Practice. By Lewis Smith, M.D. (Lond.). Re-written. Sixth edition. Price, 1s net. Bristol: John Wright & Co.

The following seven books have been received from Messrs. W. B. Saunders & Co., Philadelphia, New York, and London. Melbourne, Mr. Jas. Little:—

1. Saunders' Question Compends: Essentials of Practice of Medicine. By W. R. Williams, M.D. Price, 7s 6d.
2. The Amerian Year-Book of Surgery. Edited by G. M. Gould, M.D. 1905. Price, 13s.
3. The American Year-Book of Medicine. Edited by G. M. Gould, M.D. 1905. Price, 13s.
4. The Vermiform Appendix and its Diseases. By Howard A. Kelly, M.D., and E. Hurdon, M.D. 1905. Price (cloth), £2 2s.
5. A Text-Book of Medical Chemistry and Toxicology. By J. W. Holland, M.D. 1905. Price, 13s.
6. Nothnagel's Practice: Diseases of the Blood. Edited by Alfred Stengel, M.D. 1905. Price, 21s.
7. A Reference Handbook for Nurses. By Amanda K. Beck. 1905. Price, 5s 6d.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. E. Humphry, Townsville, Queensland; Dr. B. B. Ham, Brisbane; Dr. T. McNair, Madras; Dr. J. Ashburton Thompson, Sydney; Dr. L. Henry, Melbourne; Dr. Steele-Perkins, 85 Wimpole-street, London; Dr. C. L. M. Iredell, Melbourne; Messrs. Burroughs, Wellcome & Co., Sydney; Dr. J. B. Gunson, Adelaide; Mr. G. T. Taylor, Hobart; Dr. Llewellyn W. Roberts, Cowra; Dr. Davis Wield, Brisbane; Dr. A. A. Palmer, Sydney; Dr. J. A. Cameron, Ipswich, Queensland; Dr. A. Jefferis Turner, Brisbane; Messrs. A. L. Chatterton & Co., New York.

ORAL SEPSIS.—"EUMENTHOL JUJUEBS" (HUDSON)
MADE IN AUSTRALIA.

A Gum pastille containing the active constituents of well-known Antiseptics, Eucalyptus Globulus, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic, prophylactic, reducing sensibility of mucous membrane W. A. DIXON, F.I.C., F.C.S., Public Analyst of Sydney, after a comparative test of "Eumenthol Jujubes" and beech-wood Creasote, reports that there is little difference in their bactericidal action. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creasote." G. HUDSON, Manufacturing Chemist, Ipswich, Queensland. London Agent: W. F. PASMORE, Chemist, 320 Regent-street, W.—[ADVT.]

AUSTRALASIAN MEDICAL GAZETTE.

SOME CASES OF ARRESTED PULMONARY TUBERCULOSIS FROM KING'S TABLELAND SANATORIUM, N.S.W.

By M. McIntyre Sinclair, M.D. (Glas.), D.P.H. (Camb.), Res. Med. Supt. to the Sanatorium.

I HAVE in the first place to thank you for allowing me to bring before you to-night some cases of arrested pulmonary tuberculosis from King's Tableland Sanatorium, on the Blue Mountains. This institution was opened in February, 1903, and the first cases were dismissed almost exactly two years ago. I have thought, therefore, the time opportune for bringing an at least preliminary demonstration of our work before the members of this Association for their criticism and review; and I trust the clinical cases of arrested disease exhibited to-night will be of some interest to the members present.

I need not detain you with a lengthy description of the sanatorium or open-air treatment of pulmonary tuberculosis. To an audience like that before me it would be superfluous on my part to do so. Several able articles on the subject have already appeared in the local journal of our Association, and the details of treatment must be more or less familiar to all present. Suffice it to say that at King's Tableland we endeavour to incorporate in our treatment the salient features of the system set forth by Bodington, Brehmer, Dettweiler, and Walther. There is a general agreement in the medical profession at the present day that the most effective weapon with which to combat pulmonary tuberculosis is open-air treatment. We are able to confidently affirm that by sanatorium methods many cases of pulmonary tuberculosis are not only restored to health and working capacity, but that many of these remain permanently well, and ultimately die of old age or of some intercurrent disease. A method of treatment which will do this in even a moderate proportion of instances is, I think, well worth the attention of the medical profession.

In regard to cases admitted to King's Tableland Sanatorium, applicants are previously examined, not only by their own medical attendants, but also by one of our honorary examining officers. The duties of the resident physician in charge do not strictly commence until after the case has been admitted. It may also be said that of the cases before you all but one were discharging tubercle bacilli on admission. With one exception, therefore, the arrested cases shown to-night were not cases of "closed" tuberculosis, but cases in which disintegration of tissue was proved to have actually taken place.

Having admitted cases to the sanatorium, a careful physical examination is made of the chest, and this is repeated after an interval of a few days. The cases are classified according to the results of these two examinations, and in addition to the physical signs present, a note is taken of the number of pulmonary lobes partially or otherwise affected. Experience shows that the prognosis of a case depends not only on the stage of the disease as expressed in the old terms of infiltration, consolidation, softening, and cavitation, but also very materially on the extent of lung tissue involved. The best modern classifications, such as those of Turban and Meissen, take this factor into account, and I do not think any classification complete which does not indicate in some way the area affected by the disease. I have attempted to combine the old and new systems of classification in our reports at King's Tableland; but as these tables have already been published in the *A.M.G.* for May, 1905, I need not enlarge further on the subject at the present moment. I would only add that for purposes of collective investigation and the comparison of results in various sanatoria it is a pity some uniform method of classification has not been adopted before now; and if some such uniform classification could be agreed upon by authorities in the near future, I for one should only be too glad to prepare my reports in accordance therewith.

It is further necessary to take a note of the patient's weight on admission, and to instruct him regarding his daily mode of life, including, in addition to other points, the proper disposal of infectious sputum, and the taking of the temperature at stated intervals. I agree with Walther, Penzoldt, and others that the rectal temperatures are incomparably more accurate than the oral or axillary records in cases of pulmonary tuberculosis; and our patients at King's Tableland are instructed to take the temperature by this method.

And now to consider briefly the outline of treatment employed. It is, I think, needless for me at this time of day to dilate on the necessity of an abundant supply of fresh air for the tuberculous patient. The sanatorium to which I am attached has been specially built to ensure a practically open-air existence night as well as day; and I believe those of you who have seen the sanatorium at King's Tableland will congratulate the architects on the result attained. Our endeavour is to have the air in the wards so pure that no difference can be felt on entrance from the outside atmosphere. I am often asked how our patients stand the severe winter at King's Tableland. I am afraid the term tableland is a misnomer, as the institution is really situated on a protected slope, with a rising ridge on the westerly aspect. As a matter of fact, the uncomplicated case of early pulmonary tuberculosis—the one for whom the sanatorium is intended—does better at King's Tableland in winter than in summer; and this result is in accord with similar experience in England and elsewhere. It is probably correct to assume that the climate which makes the greatest demand on metabolism is the one from which the best results may be expected, provided the patient is capable of responding to that demand.

A few words only will be required to remind you of the second principle of treatment, namely, the necessity of a good and abundant dietary for the tuberculous patient, especially a dietary rich in fats and proteids. Every patient is encouraged to eat a full and generous diet; and as the air on the Blue Mountains is keen and bracing for the greater part of the year, there is seldom any difficulty on this score. In order to further aid digestion, a "rest-hour" in the recumbent position is prescribed before each meal, and the physiological rest to the whole organism thus obtained is found to be of the greatest use in promoting digestion and assimilation of the food administered. Forced feeding, as recommended by Debove and others, is not employed; and indeed recent researches on chemical metabolism agree with clinical experience in issuing a warning against overloading the organism beyond certain physiological limits. The principle of careful dieting, like that of fresh air, is so well recognised that I need not detain you longer on these points.

The third principle of sanatorium treatment is constant medical supervision involving the direction of the details of each individual patient's daily life. There is no doubt, I think, that this is where the well-regulated sanatorium scores over the irresponsible life of the patient, who goes on his own account even to a selected health resort. In England the saying has been coined, and meets with general acceptance, that "care without climate is better than climate without care." The patient in the sanatorium is under the necessity of adapting himself to a well-ordered routine of life. He is away from worry and excitement, and the meddlesomeness of well-meaning friends. He is advised to avoid what is harmful. He has his rest and exercise prescribed for him; and in the event of untoward complications setting in, he is without delay placed under the necessary medical treatment. The apportionment of rest and exercise in each case is one of the most important functions of the physician in charge. I hope you will pardon me if I dwell more particularly on the necessity of regulated rest and exercise in cases of pulmonary tuberculosis, because the point is one so apt to be overlooked, and neglect of this factor is, I am convinced, the cause of much failure in treatment. I occasionally have curable cases admitted to the sanatorium who have been steadily going from bad to worse in spite of the fact that they have resided in some selected health resort, and have had any amount of milk and good nourishing food. We must look for the cause of failure in many instances in some other factor, and the one generally at fault is over-exercise and fatigue of the lung. Some tuberculous invalids take so much exercise that they literally walk themselves into the grave. It is as necessary to give a tuberculous lung rest as to give a tuberculous joint rest; and in the one as much as the other we can learn much from Nature's methods. Even at a very early stage of pulmonary tubercular disease the instinctive aim of nature is to give not only the lung, but even a particular portion of that lung, rest. An examination of the extrinsic muscles of the thorax will often reveal a wasting of muscular fibre, even when the physical signs in the chest are as yet insignificant. A wasting of the clavicular and adjoining portions of the pectoralis major is, for instance, one of the most early concomitants of apical disease. Further, if such a case be placed behind the fluorescent screen it will be found that the excursion of the diaphragm is very materially shortened on the affected side. This disuse of muscular fibre is an instinctive endeavour on the part of Nature to give that particular lung rest, and points out in clear and unmistakable language the necessity of rest in treatment. Follow the subject further in disease and you will find that where collapse of the lung has taken place as a result of pneumothorax and pleural effusion, the tuberculous process not infrequently comes to an absolute standstill. Indeed, it is not improbable that with a similar object in view, surgical rest may in certain cases be obtained more frequently in the future than in the past by actual operative measures. Apart from anything of that kind, however, I need only remind you that a very material measure of rest to the diseased lung may be obtained by the simple procedure of keeping the patient in bed. In this position, we are assured by Theodore Williams, the patient can exist on a lung expansion of only one-twelfth. Applying these facts to cases of pulmonary tuberculosis it may be taken as a first principle of treatment to enjoin complete rest till pyrexia subsides and a clear gain in weight is established. I am free to admit that the factor of rest, like everything else that is good, can be carried to extremes; and in some of the Continental establishments the patient is kept practically at rest in the recumbent posture from the time of his admission till the time of his departure from the sanatorium. In such cases the lung is healed at the expense of the whole muscular organism, and at the end of treatment the patient is in anything but a fit condition to return to work. I should be sorry to imitate this process in a workman's sanatorium. At King's Tableland we usually divide the treatment of the average case into three stages :—

1. One in which almost complete rest is prescribed till marked pyrexia subsides and a gain in weight is established.
2. A period in which moderate exercise is allowed, carefully watching its effect from day to day.
3. A period of more severe exercises, including graduated hill climbing and occasional light work in the open air preparatory to a return to ordinary working conditions.

Of course there are exceptions, but as a rule no exercise should be allowed where the morning temperature exceeds 99° or the evening temperature 100° to 100·4°. A morning rectal temperature of 99° is a full degree above the normal for that time of day, and in my opinion indicates activity of the tubercular process. In such cases I keep the patient strictly at rest, the bed being if necessary wheeled out on to the verandah during the day for change of scene. By a careful study of slight morning variations one may often anticipate, and therefore avoid, marked evening pyrexia. As the temperature subsides the patient may be allowed easy walking exercise, beginning with 50 or 100 yards on the level and increasing the distance cautiously day by day, taking care to avoid breathlessness, fatigue, or unusual rise of temperature. I do not as a rule prescribe breathing exercises or respiratory gymnastics until the patient has been under observation for a considerable period. I agree with Cornet that breathing exercises in the softening stages are harmful and even dangerous. It is preferable to obtain the desired effect at a later stage by graduated hill-climbing exercises, the patient taking dyspnœa as the margin of safety just as in similar exercises for cardiac disease. Gradients over 1 in 20 should be avoided, at least during the earlier stages of treatment.

Complications occurring during the progress of the disease are dealt with on general principles. I need not go into these in detail.

I feel that in these remarks on treatment I have dealt with no more than a few corners of the subject. I have already indicated I have no intention of wearying your patience with an exhaustive description of the open-air treatment, and where omissions occur I feel I can trust to your generosity to fill in the lacunæ for yourselves. I now propose to consider shortly the classification of our results, and to deal more particularly with the subject of arrested pulmonary disease.

The terms "much improved," "improved," "unimproved," used in our reports, speak for themselves; and I may say that the cases which are unimproved, or but slightly benefited by sanatorium treatment, have, generally speaking, a bad prognosis. They usually die within a year or 18 months after leaving the institution. The outlook of the "much improved" cases is more hopeful, and provided they can continue the treatment after leaving the sanatorium, or earn their living under suitable surroundings, many of these have the hope of proceeding to ultimate arrest of the disease. I have reason to believe this has already happened in several of the cases dismissed from King's Tableland. Other cases have proved disappointing, especially after a return to the conditions of city life. In regard to the remaining group of cases which we have not yet considered, namely, those in whom an apparently complete recovery has taken place, the best authorities nowadays deprecate the use of the word "cure." The word cure has undoubtedly lapsed considerably from its classical usage, and the tendency nowadays is to give it a very restricted meaning, especially as applied to the results of treatment in pulmonary tuberculosis. If by cure we mean the *restitutio ad integrum*, it is indeed questionable if any disease is ever cured. Take, for instance, a nephritis, a case of typhoid, or even a simple rheumatism. In pulmonary tuberculosis it has further to be remembered that no matter how apparent the cure, the bacilli may remain dormant for years, and ultimately make a fresh outbreak. In this latter case, however, the possibility of fresh infection may have to be remembered as a possible factor in the equation. On the other hand, it is satisfactory to note that many cases in whom arrest of the disease has taken place appear to remain not only temporarily but also permanently well. In our reports at King's Tableland you will find the use of the word "arrest" for cases of apparent recovery; and in regard to this term I think you will admit the definition I have adopted is a fairly severe one, namely, a case in which there is an absence of all signs of active disease, registration of normal weight, temperature, pulse and respiration, absence of tubercle bacilli from the spit (if any), and a capacity for exertion approaching that of an ordinary individual. Applying this test to our cases, we may say that between 50 and 60 per cent. of our admissions during the past two years have left the sanatorium with the disease arrested; and as the average residence in these cases works out at just over four months, I think we have no reason to be ashamed of our results. The physical signs of arrested disease will, of course, vary in individual cases. In those diagnosed at a very early stage the physical signs on dismissal may be almost negative. In most instances, however, some impairment of percussion note and alteration of the normal breath-sounds will be discovered on examination. The former will vary from slight loss of resonance in some to absolute flatness of pitch in others. This flatness may be subsequently modified to some extent by the development of compensatory changes in the lung alveoli. The alterations of breath-sound will vary from the fine vesiculo-bronchial up to the dry cavernous type. Some cases of arrested disease are undoubtedly confusing at first sight, and it may be necessary to keep the patient under observation for a time before determining the actual character of the disease. In such an instance one would have to pay particular attention to the constitutional state of the patient, to the presence or absence of pyrexia, râles, and tubercle bacilli. In this connection it must not be forgotten that arrest of the disease, however satisfactory in itself, does not constitute a pathological cure, and although the patient may feel quite able for ordinary working conditions, it is right he should be warned to lead a careful life for at least some time after arrest has been obtained. How long it takes for arrested disease to proceed to the further stage of actual obsolescence—where that is possible—is an interesting problem, though obviously difficult to answer. Pathological evidence is necessary, and of course these cases of recovery are the very ones which do not come to post mortem, unless in the event of accident or intercurrent disease. One may, however, infer that the natural resistance or immunity of the individual will constitute one important factor in the process, and it would probably be correct to say that just as some cases proceed to arrested pulmonary disease more quickly than others, so some will proceed to actual obsolescence more quickly than others. In advising a case it is as well to have some definite period in one's mind, and the interval stated by Professor Clifford Allbutt may probably be taken as a safe average until further data become available. "To bring about obsolescence of phthisis even of the first stage, we need, in my opinion," he says, "two winters and one summer at least—say 18 months in all—and in saying this I am astonished at my own moderation. In many cases three winters and two summers will be needed."

The time necessary for the shrinkage of a cavity is a somewhat analogous problem. In one of the cases exhibited to-night slight excavation occurred during the process of softening, and dry cavernous breathing was present at the time of dismissal in July, 1903. I had the opportunity of keeping this case under observation from time to time, and it was not till January, 1905, or 18 months afterwards, that signs of cavitation could no longer be detected. In this particular case there was a history of recurrent large hæmoptysis prior to admission; and assuming the weak vessel to possibly form a sacculated dilatation in the wall of that cavity, there are certain grave possibilities to be borne in mind which make me hesitate to show him here to-night. I have, however, decided to do so, as he has now a clear bill of health for almost two years. I need hardly say that cases of aneurysmal dilatations in the wall of an otherwise healed cavity, or cases of vessels bridging the lumen of such cavities, are after rupture very unpromising cases to deal with. At least one surgeon of repute is in the habit of opening the thoracic cavity during the period of quiescence and applying pressure externally on cavities near the lung surface, with the hope of obliterating the offending vessel. Anything in the way of blind acupuncture is of course out of the question. Von Ruck advises the injection of fairly large doses of tuberculin, with the view of producing further fibrosis of tissue in the cavity wall. What the after results of these measures are I am not in a position to say, but at the best they can only have a limited and even doubtful application. I mention these points regarding obsolescence of arrested lesions and shrinkage of cavities not from any mere theoretical considerations, but because they show the practical necessity of warning the patient to lead a careful life for some time after apparent recovery from the disease. They also impress on one the desirability of tuberculous cases undergoing treatment at the earliest possible stages of the disease. Remembering these facts, I think you will further sympathise with us in the work we are attempting at King's Tableland Sanatorium. We have there to deal, not with people who can afford to round off their course of treatment by a visit to some other health resort, but with working men who after a few months' stay in the sanatorium must immediately return to the conditions of everyday life. We cannot, under the circumstances, attempt more than what has been termed an "economic cure" of the disease. In spite of these facts our returns, so far as they go, are most encouraging; more so, indeed, than I for one anticipated when we began our work here. Of 18 cases dismissed with the disease arrested in 1903 (June to December), 16 have been traced within the last two months; and of these, 14 are able to report themselves well and able for employment. I have had the opportunity of personally examining 10 of these 14, and in all of them the disease remained absolutely arrested. Of the two whom we know for certain to have relapsed, one was a cavity case and the other was the victim of alcoholism, to which he is quite willing to own up. Of those who remain well it may be interesting to note that two have since married, and have in each case apparently stood the strain of married life for at least 12 months. In addition to other more recent cases, I am fortunately able to show you to-night the first three consecutive cases dismissed from the sanatorium two years ago. All three have since put in a spell of hard work, one of them under very adverse conditions, and all of them are well and in employment at this present moment. If this result can take place in a few cases, there is no reason why it should not occur in others. Among the cases exhibited are several who have remained well in spite of a return to their old conditions of city life, admittedly in some cases against my advice. One man after leaving the sanatorium worked for six months in a city basement, with gas-lights burning all day and with the most abject apology for ventilation of any sort. I had the curiosity myself to visit the premises, and what I say may be taken as correct. Another is attempting to complete his apprenticeship with a city plumber, a by no means enviable trade from our point of view, and he remains well in spite of the fact that he returned to work two days after leaving the sanatorium, and that in the intervening period of 12 months he has only had three days off work, apart from the usual trade holidays. It is true that under such conditions cases will occasionally relapse. One lad, much against my wish, returned to cabinet-making work in the Chinese quarters in Globe-street. Twelve months later he reported himself at work, and added he never felt better in his life. A few weeks ago he reports himself still at work, but not quite so well; and I should not be surprised if on examination we should detect some recrudescence of the disease. A relapse under

Number Case Exhibit	Initials, Age, Married, Occupation.	Family History of Tuberculosis.	Duration of Symptoms previous to Admission.	Medical Attendants and Medical Referees.	Condition on Admission.	Pyrexia at Absolute Rest.	Tubercl Bacilli i Sputum	Pounds av.		Discharged with Disease Arrested.	Duration Treatme Days.	After History.
								Admission.	Discharge.			
1	J.G., 33, Single, Commercial.	1 B. died P.T. 1 S. died P.T. Mat. Uncle P.T. Pat. Uncle P.T.	3 mo.	Dr. Blackwood. Dr. Eric Pockley. Dr. Rennie.	Tubercular pleurisy, L. base; R. apex I.	99·6°	—	137	147	2nd June, 1903	80	Employed in City.
2	T. S., 19, Single, Timekeeper.	1 B. died P.T.	3-4 mo.	Dr. Purser, R.P.A.H.	Dulness R. apex to upper border 2 R. Increase V. R. and V. F.; bronchial breathing. Apex: crep. râles on coughing; history of recurrent hæmoptysis.	99·8°	+	109	120¾	2nd July, 1903.	124	Regular Employment, Boot Repairer.
3	S.M., 18, Single, Tinsmith.	Mother died P.T. Father died P.T. 1 Bro. tub.	3 mo.	Dr. Gledden. Dr. Syd. Jamieson.	Dulness R. U. L. Apex to 3 R.; numerous crep. râles on inspir. and expir.; harsh bronchial br.; apex and supraspinous fossa; clicking râles latter region.	100°	+	121½	144	23rd July, 1903	147	Regular Employment, Sanatorium.
4	F. G., 16½, Single, Teleg. Messgr.	—	4 mo.	Dr. Thomas. Dr. Rennie.	Infiltration both apices, especially right crepitus R. scapular region.	99·4°	+	125	144	31st July, 1903	83	G.P.O. 12 mo.; now in Sydney.
5	W. P., 32, Single, Joiner.	—	3 mo.	Dr. Rennie.	Dulness L. U. L. apex to 3 R.; numerous med. crep. râles apex and infraclav. region; few clicks R. scapular region.	99·6°	+	132½	155¾	12th Dec., 1903	175	Ship Carpenter.
6	L.M., 17, Single, Warehouseman	—	1½ mo.	Dr. Hodgson. Dr. Jarvie Hood. Dr. Rennie.	Dulness R. supraspinous region and R. apex; broncho-vesicular breathing, occasional râle; history of sl. hæmoptysis.	99·4°	+	134½	147	30th Jan., 1904	112	Clerk, Country Land Agent's.
7	H. C., 24, Single, Clerk.	2 B. died P.T.	6 mo.	Dr. Nash. Dr. Rennie.	Dulness bronchial breathing R. U. L.; numerous med. crep. râles R. supraspinous region and post apex R. L. L. Cog wheel L. apex.	100°	+	136½	147½	28th May, 1904	182	Purser, Shipping Company.
8	S. L., 20, Single, Plumber.	Father died P.T. Bro. died P.T.	8 mo.	Dr. Wood. Dr. Innes. Dr. Rennie.	Dulness R. U. L. apex to 3 R.; bronch. breathing and med. crep. râles apex to 2 R.; history of hæmoptysis.	100°	+	141	152½	8th June, 1904	102	In Regular Employment, Plumber in City.
9	W. J. B., 24, Single, Tailor.	1 B. died P.T.	3 mo.	Dr. Lawes. Dr. Rennie.	Imp. resonance both apices; fine crep. râles R. apex; cog wheel L. apex; pleuritic crepitus L. scapular reg.	99·4°	+	126½	159	20th July, 1904	109	Farm Work.
10	F. B., 37, Married, Stationer.	—	8 mo.	Dr. Eric Pockley. Dr. Syd. Jamieson.	Dulness and loss of resonance whole R. U. L.; tubular breathing R. apex to 3 R., with numerous râles; crep. râles L. apex, and post apex R.L.L.	100°	+	1·8	137	14th Sep., 1904	186	Commission Agent Regular Employment.
11	A. R., 32, Married, Photographer.	—	3½ mo.	Dr. Böhrsman. Dr. Spark. Dr. Rennie.	Dulness R. U. L. apex to 2 R.; bronchial breathing med. crep. râles; loss of resonance and prolonged expiration L. apex; pleuritic crepitus both scapular regions; hæmoptysis.	99·6°	+	150	154¾	22nd Oct., 1904	105	Brakesman; in Regular Employment.
12	F. G. S., 32, Single, Shipping Clerk	—	12 mo.	Dr. MacLennan. Dr. Syd. Jamieson.	Dulness; bronchial breathing; R. apex to 2 R.; fine crep. râles.	99·4°	+	132	151	4th Nov., 1904	174	City.
13	D. K., 37, Single, Labourer.	2 B. tub. 1 S. ?	3-6 mo.	Dr. Lipscombe. Dr. Sinclair Gillies.	Loss of resonance R. apex to 1 R.; prolonged expiration; few fine crep. râles; pleurisy R. base.	99·4°	+	172½	187¾	23rd Dec., 1904	62	Labourer, North Sydney.
14	C.M., 28, Married, Clerk.	—	2 mo.	Dr. Sinclair Gillies.	Rel. dulness R. apex to 1 R and supraspinous region; prolonged expiration; few fine râles.	99·4°	+	142¾	175	7th Apr., 1905	104	Clerk, City.
15	C. A. F., 19, Single, Tailor.	—	5 mo.	Dr. Corbin, S.H. Dr. Sinclair Gillies.	Dulness; bronchial breathing; rough crep. râles R. apex to 2 R.	100°	+	104	125	29th June, 1905	104	
16	W. B., 20, Single, Bootmaker.	—	3–4 mo.	Dr. Muller. Dr. Rennie.	Dulness L. apex to 2 R.; bronchial breathing; numerous crep. râles R. apex, prolonged expiration; recurrent large hæmoptysis.	99·8°	+	133	164	29th June, 1905	187	
17	S.M., 23, Single, Clerk.	1 S. died P.T. 2 B. tub.	4 mo.	Dr. Muller. Dr. Sinclair Gillies.	Dulness R. apex to 3 R.; bronchial breathing; few crep. râles L. apex.	99·6°	+	112¾	140	29th June, 1905	139	
18	P.S., 16, Single, Message Boy.	Mother died P.T.	3 mo.	Dr. Eric Pockley. Dr. Sinclair Gillies.	Loss of resonance R. apex to 2 R.; few crep. râles; dulness post apex R.L.L.	99·4°	+	109½	137½	29th June 1905	139	

circumstances of that kind would, in my opinion, be no stain on the escutcheon of sanatorium treatment. I hope I do not make myself misunderstood. There are cases in whom the natural immunity against the disease is so small that they get the disease arrested only after a great struggle, and these cases will often relapse even with the greatest of care. But I am convinced that a large proportion of the working classes relapse through a return to bad hygienic surroundings. No process of immunity can control the conditions of a man's workshop. One will not on reflection ask why these men return to such surroundings, for the question resolves itself into one of bare livelihood. Nothing is easier than to advise a man to go on the land or into a selected country district, and this is the ideal course to pursue wherever possible ; but it is not always possible. That is why I should like to see an after-care association formed, whose object would be to try and get these men suitable open-air employment for at least a time after leaving the sanatorium ; and I am glad to know the editor of the MEDICAL GAZETTE has supported the proposal in a recent issue. It often happens that one has to decide not what is the ideal course to pursue, but what is the least harmful of two or more possible alternatives. Take, for instance, the married city clerk with the disease arrested in the second stage, who may on the one hand return to an assured income in the city, or on the other hand strike out into a selected country district into a new line of business, for which he is perhaps ill adapted, and in which a competence in the near future is at the best doubtful. In such an instance one has sometimes—reluctantly it may be—to risk a return to city conditions ; and if an occasional relapse takes place we can hardly blame the sanatorium treatment. It is on account of such considerations that we are so anxious to see the working man avail himself of sanatorium treatment in the early stages. It is true we sometimes get arrest of the disease in the advanced stages ; but a brilliant arrest of that kind is much less likely to survive a return to working conditions than a more commonplace arrest in the early stages of the disease. I may be reminded that the working man, with a family dependent on him, cannot afford to give up his work until exhaustion compels him to do so, and by that time he is probably beyond the reach of cure. I have to admit that that is so, and we can only hope that the Government will in time find it pay —and I believe it would pay—to deal more liberally with the dependents of such men, and so enable them to avail themselves of the chance of cure at the earliest possible moment. Generally speaking, it is certain that experience teaches two things in regard to this problem, and with this I close. The first is that if the working man consumptive is to be treated successfully and with the hope of a permanent result, he must be impressed with the necessity of undergoing treatment at the earliest possible moment ; and the second is that, having obtained arrest of the disease, he must regard the sanatorium treatment in the light of an education, whose precepts must as far as possible be carried with him into his future life and work.

(Read before the New South Wales Branch of the British Medical Association.)

THE TREND OF MODERN MIDWIFERY.

By James R. Purdy, M.B., C.M., Hutt, New Zealand.

IN the bright light at present thrown on the great advances in surgery and medicine it is apt to be forgotten that the science and art of midwifery has made as great if not greater advances.

The improvements in surgery and medicine are understandable by the *hoi polloi*, or, at any rate, they think they understand them, which is the same thing to them. A layman who has read a paragraph in the newspapers, or a popular article in a review or magazine, knows all about appendicitis, cancer, the Finsen light, X-rays, and microbes (as he so calls them). He is an authority on antiseptics and anæsthetics ; he often confuses the two, but that is a mere detail.

Midwifery, however, is not a subject that is written about in popular articles. Newspapers that publish articles on the fertility of the unfit, the declining birth rate, etc., etc., consider it indelicate to even mention the title of a paper at a medical congress if it deals with midwifery, and so we are saved the opinion of the man in the street, and only those really interested in the subject are able to note the many advances made in midwifery during the last 60 years.

A mother of 10 has still great power in the land ; she is supposed to know all about the science and art of midwifery, and if anything is done differently to her way, the accoucheur is, of course, wrong. We in the profession are also not free from blame in the attitude the public take up towards us. We are far too apt to bow to public opinion and to follow the mother of 10. At any rate many medical men are content to follow out their old teaching, and do not, in the science of midwifery, at any rate, keep pace with the times. As a prominent obstetrician puts it, "Most men observe only what they have been taught, much or little, true or false, but nothing more, if even that; hence the prevalence and tenacity of error handed down from generation to generation."

I have not time at this meeting to go into all the many advances that have been made in midwifery during the last 60 years. I have said 60 years, for it is about that time since chloroform was first used in labour, and it is really chloroform we have to thank for the majority of improvements on the old methods. Of course, the general grounding that every man gets in his medical career has an important bearing upon his obstetrical work, and although the majority of students look upon midwifery as a bugbear at the schools, yet when men go out into the world and find that midwifery is the backbone of general practice, then they have to consider the position, and it is now that the general drilling of a hospital in technique comes in.

There is no nobler work in our profession than the saving of mothers and children; the preservation of life is the justification of our existence. The great drawback to the practice of midwifery in the minds of many men is to me one of its greatest charms. You must be self-reliant; you cannot, in many cases, wait even a few minutes for additional help, and in many cases no colleague could be got under hours of waiting, and so a man, single handed, generally with an incompetent nurse, has to tackle work, and big work at that, and upon which depends the present safety and after well-being, not only of the mother but also of the child. This fact is, of course, recognised by all of us, and now there is being a demand made in the schools for a larger and more lengthened course of instruction in obstetrics. The great trend of modern midwifery is the acceptance of the principle of early interference, as opposed to the non-interfering principles that were taught up to the last few years, and which are still, though in a modified degree, taught in some of the schools, and still laid down in most of the text-books. The cry, "meddlesome midwifery," is still heard in the land. In most men who practice midwifery, their method has come to them by a process of evolution, unless, of course, as, alas! many do, they still follow what they were taught at the schools. We now recognise conditions rarely formerly forced on the notice of the most ignorant, simply by effluxion of time.

Chloroform, at least in New Zealand, I am glad to say, is used in practically all labours. I have already said it is to chloroform we, in my opinion, owe all our great advances in obstetrics. We can now make, under chloroform, a careful diagnosis that formerly was absolutely impossible; and it is in an early and proper diagnosis that the whole structure of treatment is built up, and on the success or non-success of that treatment depends the future of the mother and child.

What was done formerly? The accoucheur sat by the patient's bedside, and after well oiling or soaping his finger, tried the pains. Ultimately he made a rough diagnosis; but the whole treatment was expectant, and then if the mother went to the bad the friends would say, "Everything was done; it was a very bad case; the doctor was there so many hours."

Let us compare the teaching from "Churchill's Midwifery," which used to be the standard text-book. Manual dilatation is condemned in the following terms:—"Neither is it necessary, as was formerly taught, for the accoucheur to endeavour to hasten the delivery by manual dilatation of the os uteri or passages. Such an abominable custom, as Denman justly calls it, would rather have the effect of retarding the labour by the irritation it would occasion, and might, as in a case I witnessed, give rise to sloughing and inflammation afterwards." We all know the modern opinion, although many members still follow this antiquated teaching. We are told to examine during each pain, and that no attempt should be made to retard the progress of the head. In 1851 a paper was published disproving the necessity of bandaging. Churchill believed in bandaging. Personally, I have not in my own practice bandaged a patient during the last 20 years. The placenta was removed by gentle traction on the cord. The vagina should be syringed two or three times a day with warm milk and water. If the discharge smells at all, solution of chloride of lime should be used. In later years various antiseptics were recommended and used. I have never douched a woman after labour as a routine, and I have never allowed any nurse of mine to do it. I have argued most strongly against this practice for years, and now I am glad to see that douching after labour is universally condemned. Many men, however, still practice it. Dr. O'Sullivan, in summing up the debate on my paper on "Eight Years' Midwifery Practice in New Zealand," read before the Intercolonial Congress in 1899, stated that he quite agreed with me that douching after labour was unnecessary and dangerous; and he added that he considered it criminal also. Churchill recommended patience even if labour is prolonged over 24 hours, as there is little danger to the mother. He recommended the use of ergot. There is not time to go into all the points raised in old midwifery text-books; but let us consider the statistics as published. Forceps were seldom used—in English practice once in 342 cases. Craniotomy was largely practised, being performed once in 342⅙ cases—the same number as forceps operations. Dr. Churchill, out of 1640 recorded cases, used forceps three times, performed craniotomy 11 times. The mortality from forceps cases was 1 in 20¾; the mortality from craniotomy 1 in 5½. In Continental practice, forceps were used once in about 150 cases; craniotomy was performed about once in 1000 cases. Thus you see the more frequent use of the forceps saved life even in olden times. Prolapse of cord occurred once in 214 cases; the placenta was retained once in 400 cases; 186 cases published with 36 deaths—1 in 5. Hæmorrhage occurred once in 117½ cases. Out of 630 cases of hæmorrhage where results were given, 1 in 5½ mothers died, and out of 793 cases published 224 children died—1 in 3; 114 cases of accidental hæmorrhage, mortality 1 in 4; 221 cases of unavoidable hæmorrhage, mortality 1 in 3½; 293 cases of flooding after delivery, mortality 1 in 12. It is very difficult to assess the value of the statistics as published in Churchill's book; but one thing stands out clear: hæmorrhage was very frequent and the mortality enormous. Rupture of uterus occurred once in 940 cases. Secondary hæmorrhage—that is, hæmorrhage occurring after some hours or during the lying-in month—was very frequent. (It is unknown in my practice.) Turning was largely practised; mortality 1 in 14½ mothers. Puerperal fever was very common and very fatal. Taken altogether it will be found that in the days of expectant treatment the mortality to mothers and children was enormous. In my student days a mortality of 6 per cent. mothers was considered a favourable one; children were of no account.

For post-partum hæmorrhage, which as a matter of course was very common and very fatal, it was recommended to expel placenta by traction on the cord, give ergot, pour cold water from a height, inject cold or iced water into uterus. When all had failed, Dr. Gooch recommends the introduction of the hand into the uterus. Churchill adds: "I have no doubt of its success, but it is more hazardous than the other plans." Hot water injections were unknown.

We know nowadays the best treatment of post-partum hæmorrhage is prevention. It should practically never be allowed to occur, and if you study modern methods and statistics you will find that post-partum hæmorrhage has almost entirely disappeared in some men's practice. All the text-books in olden times have chapters about vesico-vaginal and other fistulæ, all of course caused by delay. I have never seen a case of fistula in my practice. Time will not permit me to go more into the old method; but let us for the sake of comparison take some modern statistics, and, fortunately for my purpose, the Rotunda statistics for the year ending November 1st, 1903, were published in the *Journal of Obstetrics and Gynæcology*, December, 1904.

In the extern department 2282 cases were attended; 5 women died—a mortality of 0·22 per cent. In the intern department 1694 cases, with 9 deaths—a maternal mortality of 0·53 per cent. The fœtal mortality (children born dead) reached a very high figure in both departments. In the extern, 104 out of 2070 births, a mortality of 5 per cent. In the intern, 78 out of 1715 births—mortality of 4·50 per cent. In the intern department also, 33 children born in the hospital died soon after birth, making in all a mortality of about 6 per cent. The Dublin school is an excellent example of what I may term "the half-way policy." They still practice expectant treatment to a degree. I cannot speak from authority, but I believe they teach, when there is delay, some hours, say six, ought to elapse before interference. In the intern department they had 28 cases of post-partum hæmorrhage, or 1·65 per cent.

The percentage in extern cases is not given, but of the five deaths three were due to post-partum hæmorrhage and one to accidental hæmorrhage. The other is not definitely stated, but was probably due to rupture of uterus. The intern deaths are not stated in detail, but one at any rate was due to post-partum hæmorrhage. In the intern cases forceps were applied 60 times, 48 times for delay in second stage; of these, 45 were primipara. So out of 576 primipara, forceps were required in 7·8 per cent. of the cases. The extern cases are not given. Manual removal of the placenta was found to be necessary in 24 cases. One died 48 hours afterwards of acute sepsis—a striking comment, says the editor, upon the risks attending this operation even in skilled hands. Elevation of temperature was present in 146 out of 1694 cases, or 8 per cent., due to sepsis, pneumonia, bronchitis, influenza, phthisis and mastitis.

Now if we compare Churchill's statistics and the Dublin ones, we find in both a high maternal and fœtal mortality, and a high rate of post-partum hæmorrhage and sepsis. Of course the Dublin compare most favourably with the old school ones; but I hold if expectant treatment was not pursued to the extent it is in Dublin that their death rates would be much less. A maternal mortality, allowing for all conditions, of about 6 per 1000 is a very high one in a well-equipped hospital like the Rotunda, and a fœtal mortality of nearly 60 per 1000 is awful.

In my own practice, extending over 20 years, I have practically had no maternal deaths. The only two deaths in my practice were one at the seventh month, moribund from eclampsia when first seen (she died within an hour), and one in a woman of 40 who had had two children, an interval of 20 years between them. She was doing well, and the labour was not out of the ordinary. She died quite suddenly on the fourth day after delivery, probably from embolism.

I have not as yet had a case of puerperal fever. I have only seen one case of mastitis during the last 15 years. I have also had no case of phlegmasia dolens for over 15 years. As a matter of fact sepsis is unknown in my work.

I use forceps in about 60 per cent. of my cases. I am never quite easy in my mind unless I extract the placenta manually. I certainly do it now in 50 per cent. of my cases. I learnt this method from a brother practitioner. When I first came out here he used to say he was never satisfied unless he passed his hand into the uterus and extracted the placenta as a routine. Up to then I had only done it when forced upon me, and for a long time I viewed his method with suspicion; but as years rolled on and I saw how well his patients did I gradually followed his counsel' and now am never quite satisfied unless I have explored the uterus manually after labour. I have so far seen no bad results, but have records of many cases where the procedure was of enormous preventive benefit. I have hardly ever a case of post-partum hæmorrhage. The only ones I see are when the patients have delayed in sending for me, and labour is over or nearly over when I arrive.

I read a paper on my midwifery experience in New Zealand at the Intercolonial Congress in Brisbane, so I need not take up time going over old ground; but I may add I have attended 314 cases since that paper was written, and five children died in birth; one lived 24 hours. I am well aware of the necessity of abdominal palpation and of the ease with which the position can be made out, but I hold external palpation will never supersede internal examination, and that the great trend of modern midwifery is to look upon parturition as a natural process, to make a thorough diagnosis, and as soon as ever Nature departs from the normal, then to step in and try by the art of the obstetrician to stop any delay from becoming a source of danger either to mother or child, or both. Diagnose the condition, make up your mind what ought to be done and do it. Each case varies and must be treated on its merits; but a natural process should never, as far as lies in our power to stop it, be allowed to drift into what may be a very serious condition with all its grave results.

(Read before the Annual Conference of the British Medical Association, New Zealand, at Auckland, March 2nd, 1905.)

Hospital for Consumptives, N.S.W.—The Chief Secretary has received a report from a committee appointed to advise as to the best site for a building to accommodate those inmates of the Liverpool Asylum suffering from consumption. Two sites were under consideration, one at Eckersley, seven miles from Liverpool, and the other at Leumeah, also a few miles from Liverpool Asylum. Both sites are on Crown lands. The committee, which consists of Dr. Beattie, Medical Superintendent at Liverpool Asylum, Mr. E. Hanson, Director of Government Asylums for the Infirm, and an officer each from the lands and Public Works Departments, has reported in favour of the site at Eckersley.

THE USE OF LIQUID AIR IN SURGERY AND SKIN DISEASES.

By T. G. Beckett, L.R.C.P. et R.C.S. (Edin.), Hon. Electrician, Alfred Hospital, Melbourne.

In order to avoid any disappointment I will commence by stating that my personal acquaintance with liquid air is only a short one, limited to the past few weeks, so therefore I cannot offer you anything of at all an original character; but still I hope I shall be able to bring under your notice a sufficient number of facts relating to its nature and properties, so that you will not think I am wasting your time to-night. I would much prefer to have had a longer experience in trying it myself before reading you anything on the subject, and my principal excuse for thus bringing the subject so prematurely before you is this: It is the first time that we have ever had any liquid air in Australia that I have ever heard of, that is in any practical quantity; and that we have it now is simply due to the good fortune that we at present happen to have a visitor to Australia who possesses the expensive and elaborate machinery necessary to produce it; but how long we are going to remain in that fortunate position I cannot tell, the position being somewhat that described in one of the latest songs, " We may not always have it, but we have got it now," and so I thought I would take advantage of the opportunity not only to try it myself but bring it under your notice, so that others, if disposed to, might try it also. When we come to remember that it is about 15 years now since liquid air was first produced in any quantity, and the great expectations that were held out owing to its wonderful properties, the fact that it is still very little more than a scientific curiosity indicates that it is so far probably from a commercial point of view a failure; and when we bear in mind not only the cost of producing it, but the impossibility at present of storing it, I think it can easily be accounted for; and for the same reasons I think we can explain why it has not yet been given a good trial up to the present by the medical profession. At any rate, although I have heard vaguely of its use in this way, still I cannot discover any records of it in any books or journals, but possibly some of you may have done so. I don't suppose that we are anyway more backward in this respect in Australia than at home, because I believe even up to the present time that liquid air is not to be bought in London. In America, on the other hand, I believe it was used to some extent—with what results I am endeavouring to find out.

The history of the discovery of liquid air, the climax of a long series of expensive and tedious experiments for about the last 100 years, is one of the fairy tales of science, and so interesting a one that I hope you will excuse me briefly glancing at it. One of the earliest workers on record was a Mr. Perkins, who in 1823 claims to have liquefied air with a pressure of 1100 atmospheres, which corresponds to the enormous pressure of eight tons to the square inch. It is very improbable that he succeeded, however; the liquid which he says he obtained was most likely nothing but condensed moisture. There were doubtless many workers at the same subject even before his time, but it is generally conceded that the first demonstration of the liquefaction of gases was given by Faraday when he liquefied chlorine by pressure, which he did by carrying out a suggestion of Sir Humphrey Davy, by heating hydrate of chlorine in a sealed glass tube. This was in 1823. After this Faraday was engaged mainly in his electrical work, and it was over 20 years before he again took up the subject of liquefaction of gases. It was continued by other workers, the principal ones being Raoul Pictet and Louis Paul Cailletet, who both about the same time (December, 1877) claim to have liquefied oxygen and other gases. Previous to this, other gases more easily liquefied, such as sulphur dioxide and carbon dioxide, had been successfully liquefied. The earlier workers had trusted almost solely to the effect of enormous pressures to accomplish these results, but it gradually began to be realised that pressure alone is not sufficient. The main fact on which the possibility of liquefying any gas rests is now known to be that for every gas there is a critical pressure and a critical temperature to correspond, below which liquefaction takes place. The critical temperature for liquid air is – 220° Fahr. and the critical pressure 39 atmospheres. It is absolutely necessary to cool the gas to a certain temperature, on reaching which, as soon as the pressure reaches the required amount, the gas is liquefied; above a certain temperature, which varies for each gas, no liquefaction is possible, no matter what the pressure may be; so that, as a matter of fact, the question of temperature is the most dominating factor in the case. It is possible to compress a gas into a space but little more than it will occupy as a liquid, and yet it remains a gas. In the sun's atmosphere, under the enormous pressures and temperatures that prevail there, it is probable that there are gases as dense as treacle. On the other hand, certain experiments show that it is quite possible, under the effects that can be produced by extremely low temperatures, to liquefy air, even under the normal atmospheric pressure and even in a vacuum. These low temperatures can easily be obtained once the gas is liquefied, as in boiling so much heat is absorbed. For this reason some gases cannot be easily shown in a liquid condition. Take carbonic dioxide, for instance. As soon as this is exposed to the low pressure of the atmosphere it boils away so rapidly that only a portion can be immediately evaporated, and the remainder is converted into a solid. This, you will see, does not happen to liquid air, although it is possible to solidify it. It is as well to grasp the fact that a boiling fluid does not in reality give off heat; it really absorbs it. An old experiment shows this. If you take a copper kettle of boiling water off a fire, so long as it is still boiling it is possible to rest it on the palm of your hand without hurting it, but the moment it stops boiling it will burn you. It requires a little confidence to do this experiment. I have never tried it myself, but would like to see someone else do it. In the same manner it is possible to cause water to evaporate so quickly that it will freeze into ice, as I will show you presently. The great fact to bear in mind is that a boiling or an evaporating liquid absorbs a good deal of heat, or, in more popular language, gives off a good deal of cold. For the same reason a gas expanding to an increased volume, as when released to a lower pressure, also absorbs heat, or, in other words, becomes cold. These are the facts that are utilised in liquefying a gas. Easily liquefied gases, such as carbonic oxide and ether, sulphur dioxide, nitrous dioxide, and other gases have all been utilised as refrigerating agents in attempts to liquefy air; and, to cut a long story short, I think it was about 1890 that Dewar, at the Royal Institution, finally liquefied air in any visible quantity. You can quite understand under these circumstances what a very expensive process it was. Finally, in 1891, Tripler, in New York, succeeded in liquefying air by itself alone, that is without the aid of other refrigerating gases, utilising the cold produced by the expansion of the compressed air itself for this purpose, and in this manner he was able to produce liquid air in fairly large quantities by the gallon. Under ordinary circumstances and exposure to atmospheric pressure—as seen in a glass measure, as I will show you presently—liquid air is steadily boiling away all the time at a temperature lower than – 300° Fahr., just as fast as it can obtain the necessary heat from its surroundings; and the problem of retaining it for anything but a short time is just the same as if you were to put the same vessel of water into the centre of a fire. No non-conducting material would be effective for keeping it. A piece of ice is hot in comparison, and we owe to Dewar the invention of vacuum jacketed bulbs and vessels, which you can see is a fairly successful means of holding it. Some of the liquid I am now showing you was made a fortnight ago in Sydney. This is longer than some I had, which only lasted a few days.

The chemical composition of liquid air varies, and is not identical with that of the atmosphere. The carbonic dioxide is eliminated, as it is solid at this temperature and can be filtered out; and as nitrogen has a higher boiling point than oxygen it evaporates first, which results in leaving the liquid richer and richer in oxygen, until at last it is mainly composed of oxygen. This has been used as a method of preparing compressed oxygen.

The effects produced in using compressed air, which is the matter we are considering, are not affected by the question of its composition, but are the direct results of the very intense cold produced by its evaporation. If applied to the skin lightly and cautiously repeatedly for a few minutes a refrigerating effect is produced of any degree of intensity desired, producing, as with chloride of ethyl, which you are all familiar with, complete local anæsthesia, under the influence of which small surgical operations can be done. I have had no experience of it in this way myself, but it appears to me probable it should be quite equal, and perhaps superior, to this chemical, as, being far more powerful, stronger freezing effects may be produced. If applied too freely and for too long a time, then frostbite effects are produced, even to causing ulceration of the skin. This, I find, can be done in a few seconds, and I will let you try the effect on your own skins; a little practical demonstration will quickly show you its effect. It is not painful unless the parts are tender and sensitive, but, you will notice, feels like a burning sensation if applied intensely; the skin whitens, but as soon as its temperature returns this effect passes off, and no change can be seen. If, however, the effect has been greater than this a slight reddening comes on after, which may last a day or even longer. The next stage of severity is the formation of a blister, similar apparently to a burn. I am referring, of course, to its effect on healthy skin, and this effect can be more intensified according to the time and manner of its application, and it is quite possible, to use an Irishism, to cause quite severe burns with it, for that is apparently what they look like and feel at the time. In using it in treatment I do not use it so severe as that; at any rate I have not thought it advisable to do so at present; but it is quite possible that under a general anæsthetic there are some circumstances in which such a procedure might be adopted with advantage. It certainly should be as effective used in this way as the actual cautery, such as is often done, for instance, in the operation for hæmorrhoids. However, I do not wish you to think that its effects are necessarily so powerful as this, as one great advantage of it is that it is very easy to modify its effects from the mildest and most transitory up to any degree of severity desired, as you can easily try for yourselves. The class of cases that I have been trying it on are those of a superficial and more or less malignant nature that have existed and been incurable for a length of time, such as lupus, rodent ulcer, and small epitheliomas. These, as you are by this time well aware, are now most successfully dealt with by X-rays, and therefore I am unable to show you any to-night that have not also been treated by X-rays. So satisfactory are the X-rays in dealing with all these kinds of diseases that, provided X-rays are available, I should hesitate very much before trusting to solely anything else; yet from what I have already seen of the effects of liquid air, I can quite conceive the possibility of it curing the first two of this class of cases in those that were not too severe; but still, probably, better results can be obtained by combining the two, and using the liquid air as an adjunct to hasten the X-ray treatment, for, as some of you know, we sometimes strike cases that take a long time to cure, and a few that seem to resist it altogether. One reason that induced me to try liquid air was the fact that long ago I noticed in cold frosty weather I got unexpectedly severe and quick reactions, not in one but every case I treated on such days. This I attributed to the effects of cold winds. I have not read of this effect being noticed before, and I have since been trying in cases which I wish to hasten the X-ray reaction a partial freezing with chloride of ethyl before treating, and I came to the conclusion it was sometimes an advantage. The cases I am going to show you to-night include two rodent ulcers. The first is an old case that has been under treatment for a length of time. It was about three inches long and one and a-half wide in the temporal region. I cured it all but two or three small spots, which still obstinately refuse to disappear, although they scab over. The other is a very similar case that has been about a couple of months under treatment, and is now reduced to a small ulceration about the size of a shilling. Another case is one of lupus erythematosus, a bad case in a young man. These cases are, as you know, most particularly difficult to cure, and even with the X-rays success is often not attained. They are very mysterious in their nature and seem to resist all treatment for half a lifetime. This case was not going on at all satisfactorily under X-rays, but I am very pleased with the marked improvement since I have been using liquid air. In this case, as you will see, the area involved is so large that it has proved rather painful, but I found that the use of the high frequency currents applied in the form of the effleuve relieved the pain at once, as it always does when such is the case. I do not attribute the improvement to the high frequency currents, because I was using them before, but without getting the marked improvement you will now see. Another case is one of epithelioma of the lip. This I had nearly cured by X-rays before trying the liquid air, but there still remained a little roughened squamous epethelium, which often proves most obstinate to completely remove. Yet I know by experience if anything of the kind can be detected that recurrence may most certainly be predicted. I have left off the X-rays for some weeks now, and use liquid air alone, and the result is most satisfactory. To all outward appearances he appears to be cured. Probably all skin diseases of parasitic and germ origin would do well; and this raises the question of its germicidal action. So far, experiments show that bacteria can be frozen in liquid air and thawed again without appearing any the worse; also, it has been discovered that if, whilst in a frozen condition, they are powdered up, then they are killed, and this is one method of preparing an antitoxin. The fact that in the laboratory liquid air does not have any bactericidal action does not prove that its effect would be useless in cases of germ origin. The experience with X-rays shows that it is quite possible to have a decided effect on germs in the body, especially when superficial, even although laboratory experiments are not encouraging to such anticipations, and the effect is due, as I have pointed out in the case of X-rays, to the two causes—first the diseased cells, the home of the invader, is killed much easier by its action than the healthy cells, and also the stimulating effect that it causes. In the case of liquid air it is not at all likely that the brief period the germ might be subject to the cold could kill it, but the skin itself is powerfully affected; and those cells whose vitality is lower by the invasion of a parasite will be the first to perish. In this manner a certain selective action may be expected. One method of examining the action of liquid air is to compare it with other agents we have. For instance, it may be compared with any of the escharotics, but I think its action would be found to differ in this respect. An escharotic destroys all tissues it meets indiscriminately in virtue of its power of causing chemical destruction of the parts. Take ethylate of sodium, for instance. About six weeks ago I produced two apparently equally bad burns on the back of my arm—one by this agent and the other by liquid air. The effect at first looked somewhat similar, but that produced by liquid air healed in a week or ten days, and there is no mark to show where it had been, but the effect of the ethylate of sodium is there yet; the skin is apparently destroyed, and at present there is still a scab. Compared with X-rays, the effect of liquid air is instantaneous, whilst the peculiar action of X-rays take a week to ten days to develop. Liquid air has only a superficial effect, whilst X-rays has a fairly deep, penetrative action. The relative—what I might call selective—action on diseased cells I have not had sufficiently long experience to judge. In rodent ulcer I do not think its effect is the same as X-rays. Still, as I said, there are some cases where after a length of X-ray treatment its use might be found of advantage. Compared with X-rays, its use is very simple. Instead of an expensive and complicated lot of electrical apparatus, which requires no small technical knowledge to manipulate successfully, all the apparatus required besides the liquid air is a suitable glass rod, with a small piece of cotton-wool wound round the tip of it, the shape and size of it according to degree of intensity required to be attained. Where the surface is raw or ulcerated it is advisable to cut a small piece of gauze and place over it; otherwise the cotton-wool will be quickly frozen to the surface.

(Read before the Victorian Branch of the British Medical Association.)

CATARRH.

By C. L. M. Iredell, M.R.C.S., etc., Melbourne.

When the subject matter of this paper is read some may wonder why I chose the above title, as they will rightly maintain that catarrh is a *state*, not a *disease*, but I have purposely used the term catarrh because the public, with whom after all we have to deal, have catalogued this word as representing not only a disease, but a very serious one.

At first only now and again, but of late quite constantly, patients have anxiously asked me concerning their state, "I hope I have not got *the* catarrh, doctor." Smilingly, I have replied, "You certainly have *a* catarrh, but there is nothing very awful in that, is there?" "Oh! but doctor, *the* catarrh is incurable, is it not?"

Now, I want in a short space to consider whence all this trouble arises, which has undoubtedly attracted much attention during the last few years.

Put briefly, it is merely an increased secretion from the mucous glands which are proper to the lining membrane of the whole of the upper air passages, including such cavities as communicate with them, and it is this increased secretion which justifies the term catarrh; but it is well to remember that it is not a new state but merely an excess of a perfectly natural and absolutely essential lubricant to parts immediately below, which must be kept moist and supple, or else, from continual action of passing air and food, a dry condition would quickly supervene of a much more serious nature. We know something of this in atrophic rhinitis.

At the same time with the excess of mucus you get a changed condition, no doubt resulting from much of it, especially during the hours of rest, accumulating in the passages and being dried and thickened by the passing air, and so becoming viscid and tenacious. This is the beginning of trouble. It is curious to note that very little was said or written of this condition, at any rate in England, until Morell Mackenzie's classical book appeared in 1884. And it is interesting to see the way in which he heads the chapter on this affection:—Section VI.—"Chronic Catarrh of the Naso Pharynx."—(Synonyms: Post Nasal Catarrh—Retro Nasal Catarrh—Follicular Disease of the Naso Pharyngeal Space—American Catarrh)—with this footnote: "The complaint is so extraordinarily prevalent in America as compared with any other country that it may be regarded with all propriety as a national affection." Since that time it has either become more common or has been better observed over the entire civilised world.

There is no doubt whatever of its existence, no doubt of its tendency to become chronic and to affect other parts in the immediate vicinity of the naso-pharynx, notably the Eustachian tube and middle ear, the larynx, and probably the stomach, and through this latter organ the general health.

It is unnecessary to burden the reader with the separate opinions of all the authorities on the subject, which are pretty numerous, and include the names of specialists in most countries of Europe and America, as the works of these eminent men, written in various languages, are of course quite familiar to us all; so that I content myself with remarking that although some hold that post-nasal catarrh is due to a mixed condition, there is a common consensus of opinion that *the* great factor is dust.

For myself, I cannot see why we need go much further in seeking a cause, although, naturally, any local irritation of vital tissues is apt to take on a more acute form where from any other cause the vitality is lowered. Let me go, therefore, for a moment into the question of DUST.

In a recent work of Marie Corelli's she makes one of her characters speak thus:—"Good morning, Sir! I trust I see you well." "Thank you, Mrs. Spruce, I am very well." "Which is a mercy indeed!" said Mrs. Spruce, fervently, "for we never knows one day to another whether we may be sound or crippled considering the diseases which now flies in the air with the dust in the common road, as the papers tell us—and dust is a thing we cannot prevent, do what we may, for the dust is there by the will of the Almighty who made us all out of it."

Well there is no doubt there is more in dust than meets the eye, though some of it does that.

From the scientific papers that have been written about dust it is incontestable that it may and often does contain among other ponderable matter, certain disease germs which are well recognised, and it is a merciful thing that up to date no considerable authorities have suggested taking throat swabs in cases of post-nasal catarrh, because in a very large proportion of young people there would certainly be found the Löffler bacillus, which would necessitate indefinite isolation for the little patient, or the tubercle bacillus, which might make it necessary to break up home and occupation; or indeed a stray bacillus Lepra might be found dwelling in any one of us, and before we realised it we might be condemned to the quarantine grounds! Anyhow, so far as I know, no one has yet isolated the bacillus of post-nasal catarrh, and although it does contain organisms, the symptoms of ordinary catarrh are quite sufficiently accounted for by inorganic particles; and it is a noticeable fact that catarrhal states of the upper air passages are far less troublesome at high altitudes or at sea, where the air is not so laden with particles which, whether organic or inorganic, act on the sensitive membrane as foreign bodies, causing an effort on the part of the mucous glands to wash the irritating offenders away.

Now the far-reaching effect of irritation is a study which is only in its infancy, but if it be true that an attack of kidney trouble in the case of the first Napoleon lost the battle of Waterloo and so altered the whole destiny of Europe, it is quite conceivable that a continued disturbance of the delicate distribution of nerves at the entrance of the body would fully account for the many symptoms which are found "en traine" as the possible result of post-nasal catarrh.

It is not at all likely that everyone will accept the premises I have here laid down; but as this is a paper, not a discussion, I shall proceed to make some remarks on the treatment of this affection, assuming that the cause is primarily dust, even when complicated with more general conditions. Well, of course, if it were possible, the thing to do would be to avoid dust; but as Mrs. Spruce said, "dust is a thing we cannot prevent, do what we may"—in fact, it seems to me that advancing civilisation keeps making more and more dust in the world; the wheels of her car—and of course being up to date she has a motor car—are throwing more and more dust about.

For the favoured few it may be possible to minimise the evil by living in positions fairly free from dust, but the tendency of the human race is to centralise, or, in other words, to live in large towns, where, as Shakespeare puts it, "All our yesterdays have but lighted fools the way to dusty death."

This being so, how are we going to deal with the local irritation ?

It is not always a bad thing to follow a lead from nature. If, as the result of accident or intention, one gets a whiff of irritating powder up one's nostril, there follows an immediate flow of mucus, which is obviously nature's effort to wash the foreign substance away. If the dust is not of a pungent nature the particles simply become entangled and detained in their onward path towards the more delicate membranes of the lower air passages, so that the sputum in the case of one who lives in a coal laden atmosphere is often quite dark in colour, but, nevertheless, there is an increased action of the mucous glands caused by the presence of foreign material.

Now why not assist nature to clean up this Augean stable ?

There is a wholly unwarrantable prejudice against the nasal douche—founded simply on ignorance of applied mechanics. Sprays are absolutely useless. The boat-shaped devices which are used with the head thrown back simply wash the lower meatus of the nostril and run over the back of the soft palate and so into the mouth, and have been provided to supply the bleatings of the profession who have received a scare about the douche in connection with the Eustachian tube.

I can say this, that for the last twenty years in Melbourne I have not only used daily, but have instructed patients nearly daily how to use for themselves, the nasal douche, and I have not yet heard of a single case where ear mischief has been set up, and I am pretty certain I should have done so if it had occurred. During that time I have "heard" of one or two cases, not patients of mine, and in those cases I took the trouble to ascertain how it had been used and always found that the head had been held up or even back, which fully accounted for the occurrence.

Let us consider the passages that the water from the douche has to traverse. When it first enters the nostril, let us say on the right side, it proceeds to fill all the space anterior to the choana, which form a constriction at the back of the nostrils, hence the name "koavn," a funnel. Having passed through the right choana it immediately enters that pear-shaped cavity at the top of the pharynx, which we call the post-nasal space, and one of two things will happen: either the water runs down into the mouth, or if the patient is properly instructed it fills the cavity and runs down through the left choana into the left nostril and washes that out also. Of course the process may with advantage be changed from one side to the other, because the downward stream does not perfectly wash the upper portion of the nasal cavity. The *proper* instruction that I allude to is that the patient keep the forehead well down, if possible making it the lowest angle of the face. With the mouth wide open, breathing slowly and deeply entirely through the mouth, this brings the soft palate against the back of the pharynx and completely shuts off the buccal cavity. If this is done the water will *never* enter the Eustachian tubes and very rarely cause any disagreeable sensation, but some people are exceptionally sensitive and cannot use the douche; this is, however, very rare.

The trouble about water entering the Eustachian tube is entirely due to pressure. It is not quite easy to get fluid into the middle ear even if you want to, and it can never be done without pressure; everyone who has used the Eustachian catheter knows that, and that is just the point.

An elementary acquaintance with hydraulics will, with a rapid glance at the cavities concerned, explain that with the forehead *down* and the fall of water not exceeding 18 inches, it would be impossible to get pressure in the post-nasal space.

I am aware that people are sometimes dreadfully stupid, and that when you have studied the use of the douche yourself and have carefully explained to them how it should be used, they will even then do something wrong and you get the blame; but still I maintain this is the only way in which you can hope to wash out at all satisfactorily the greater part of the mucous lining of those intricate cavities known as the nostrils; and where your instructions are intelligently carried out the result will always be satisfactory, that is if the trouble is due to the presence of dust.

I have found it useful to impress the patient with three cardinal points:—

1. Water must be warm (blood warm).
2. Something must be put in the water (sod. bicarb., for choice).
3. The forehead must always be the lowest point.

Sod. bicarb. should be the basis of any powder used with the douche. It fulfils two functions—first as a solvent of mucus, and secondly, it chemically corrects local acidity, which is pretty constantly present in catarrhal states.

If the douche has to be used for any length of time the soda sometimes causes irritation and a cracked condition of the tissues at the line where the skin and mucous membrane blend. I have found this trouble entirely obviated by using a powder containing equal parts of sod. bicarb. and icing sugar. These materials are convenient to get and inexpensive—two great considerations when you want your patient to carry out a treatment, it may be, for weeks or months. A teaspoonful of this mixture or half a teaspoonful of the plain sod. bicarb. in a sodawater tumbler of blood-warm water is about the proper proportion.

After the douche some of the volatile oils should be used, such as camphor, menthol or the like, in vaporole or spray form. This will remove any trifling discomfort which the water sometimes leaves behind it. Moreover, as these essential oils are powerful germicides they may have a further value.

There is another method of treating post-nasal catarrh which I have never adopted myself, but of which I have had some experience, as patients of mine not satisfied with the progress they were making under my care have betaken themselves to other specialists, who have regarded over-sensitive mucous glands as offenders of a class only to be dealt with by immediate removal, and so have proceeded to curette the post-nasal space, with the result that for the time some improvement was certainly brought about until a kindly nature had reproduced the tissue with its appropriate number of glands, and then the trouble recommenced; and then again under my advice gentler methods have been acknowledged as more satisfactory.

Post-nasal catarrh, when it has become fairly chronic, is evidently a pretty annoying affection to anyone, but where the subject of it is a voice user, especially a singer, it is really a very serious state.

PRELIMINARY COMMUNICATION ON THE TREATMENT OF ARTERIOSCLEROSIS.

By Eugen Hirschfeld, M.D. (Strassburg), Honorary Physician to the Brisbane Hospital.

I WISH to lay before you a short *resumé* on a mode of treatment of arteriosclerosis which has given me favourable results during the last two and a half years. This method is the systematic employment of hot baths. Arteriosclerosis, we all know, is a degenerative process affecting the walls of the arteries and resulting in the impairment of their chief functions—elasticity and contractility. The causes of arteriosclerosis are mainly (*a*) advancing age: here it simply represents the sum total of labour done and injuries suffered during life; (*b*) the presence in the blood of poisonous substances, as alcohol, lead, gouty, syphilitic, malarial and other poisons, or of an excessive quantity of the ordinary waste products; (*c*) habitual over-pressure, either the result of long continued and excessive strain, or of the irritative presence of those poisonous substances. Arteriosclerosis is the inherent penalty of " strenuous life."

No treatment whatsoever will avail against the anatomical lesion already present where fibrous growth has taken the place of the elastic and contractile elements; but we can strike at the injurious factors which, in the first instance, gave rise to the disease and are continuing to operate in the same direction. The effect of the hot bath upon the patient suffering from arteriosclerosis is fourfold:—

1. The hot bath alters the distribution of blood pressure by unloading the internal organs and increasing the vascularisation of the skin; hence it affords prompt relief in many of the various cases of pain associated with internal gout, that frequent source of arteriosclerosis. This altered distribution is also probably the reason why the sleepless-

ness so often troublesome in arteriosclerosis becomes after a short time manageable without the further aid of drugs. I feel sure, however, that this vascularisation of the skin is not a purely derivative effect of the hot baths, but also an irritative one. It acts like a huge blister. That such is the case became evident when I used the hot bath in arteriosclerosis patients with neurasthenic symptoms. Here the abnormally enhanced sensory perception is evidently still further increased by the application of heat over the whole surface of the body, and, in consequence, sleep is interfered with by too hot a bath. In this, as in many other cases, it was the untoward effect of the hot bath which pointed the way to its proper applicability.

2. The hot bath increases combustion. The temperature of the body rises during the hot bath. I generally had the temperature taken immediately after the hot bath and subsequently every half hour for the next four hours. This rise takes place in subjects both with a normal range of temperature and in fever cases, where the balance of temperature is disturbed. The rise depends, only to a certain extent, though, upon the warmth of the water and length of immersion. After a bath of 104 degrees, lasting ten minutes, the rise of the body heat amounts to between one and two degrees F., and extends for about two hours ; the temperature returning gradually to the former level. The rise is, of course, due not to an increased production of heat, but increased storage and direct warming of the blood. But no matter what it is caused by, the increased temperature of the body means increased metabolism, an increased oxidation of the waste products and other substances, and an increased respiratory exchange. This probably accounts, partly at least, for the loss of weight following upon the hot bath.

3. The hot bath increases the elimination of waste products. It is followed, though not immediately, by an outbreak of perspiration. If the water has not been too hot, not above 104 degrees, there is no heavy sweating, but the skin becomes moist after 20 or 30 minutes, and continues so for about one and a half hours. If the temperature of the bath is raised to 106 or 108 degrees, heavy sweating results. This sweating, no doubt, is the effect of the system to regain its former level of the temperature. It is, therefore, generally an advantage to send the patient to bed after the bath, in order to keep up a gentle perspiration for a lengthy time, although in our climate during the summer months the patient gets rather impatient of bedclothes.

4. The hot bath, by opening the channels of the skin, reduces the pressure of the blood in the same manner in which the pressure of water running from one tap is lowered as soon as another tap is turned on running. In former times it was customary to reduce the pressure by repeated venesection, nature showing the way by the occasional bleeding from the nose that sometimes relieves arteriosclerosis patients. The hot bath bleeds the patient into the skin. The pulse gets softer, more frequent, and often dicrotic. While the determination of the blood to the skin lasts the low pressure continues; hence by giving the bath at bedtime, the warmth of the bed keeps the skin vessels dilated and extends the effect. How long the fall of blood pressure continues as the result of even a few hot baths became apparent when I employed them in the treatment of other diseases where the original blood pressure was not excessively high, as in arteriosclerosis. The long continuance of the low pressure was a most unwelcome symptom, which had to be treated in itself. At any rate the systematic employment of the hot bath in arteriosclerosis daily or several times in the week at last establishes an increased vascular habit of the skin, thus permanently lowering the pressure. A patient was good enough to carry out a valuable control experiment. About twelve months ago he was under treatment for well-marked arteriosclerosis, dyspnœa on slight exertion, systolic murmur over aorta, full bounding and hard pulse, increased heart dulness and polyuria ; he was not able to walk 100 yards without stopping for breath. He had been under treatment for several years, had taken a trip home, and consulted various authorities there. Under careful regimen and hot baths he improved rapidly, was able to follow his occupation ever since, and could walk for five miles without getting out of breath. He abstained from liquor fairly well until about three weeks ago, when he went on an extended drinking bout. To his and my surprise, the alcohol that had always had disastrous consequences before left the patient this time without any trouble worth speaking of. He has been continuing the hot baths and been able to enjoy a good night's rest, although in former years he had had to resort to chloral from time to time.

The hot bath ought to be prescribed with as much exactness as a dose of morphia. The hot bath is a potent remedy capable of doing much good and a great deal of harm. Even the increase of one degree brings about unpleasant effects in some cases. In every instance it is necessary to ascertain exactly the reaction of the individual. One may safely begin with a temperature of 102 degrees if the patient is not above 55 or 60; in women it is safer to begin at 100 degrees. The time of immersion should not be less than ten minutes, although I rarely had to exceed that time. The determining factor in the management of the patient is the condition of the left heart, the quality and loudness of the 1 and 2 aortic sound. Without a vigorous left heart the hot bath must be used with caution. This was impressed upon me whenever I had occasion to use it. I employed the hot bath in a variety of conditions in pneumonia, meningitis, dengue, typhoid, nephritis, and the treatment of heart diseases. The most favourable results were obtained in pneumonia and dengue. But I must warn most distinctly against the indiscriminate use of the hot bath where there is not a good systematic pressure and a vigorous systolic output to start with. While these two conditions obtain in arteriosclerosis favourable results will follow the treatment indicated. I frequently, as many others before me, have used hot baths in chronic-interstitial nephritis with its high tension pulse, and have found it to fail. The explanation, in the light of the experience gathered, seems to me to be this:—The patient generally comes under our treatment, not on account of his kidney trouble, but just at the time when the compensatory effort of the heart, maintained for years, begins to fail. As long as the heart compensates the shrinking filtering area of the kidneys by increased driving force, the patient does not become aware of his trouble. At last the heart begins to fail under the strain of the high pressure and the poison, and we have to face a failing heart, although the pressure compared with normal conditions may be high yet. In these cases the hot bath, just as well as all the sweating procedures usually recommended, does direct harm by still further lowering the needful pressure.

The following statement requires some qualifications, but, I think, covers many cases:—Where digitalis is contraindicated the hot bath is likely to do good; where digitalis is indicated the hot bath should be given with caution or be left alone.

TWO CASES OF HYPNOTIC TREATMENT.

By R. T. Michell, M.B., C.M. (Edin.), Blayney.

THE average general practitioner, when he does not absolutely relegate hypnotism to the realms of superstition, usually regards suggestive therapeutics as in too immature a stage to be admitted to general practice. Yet this powerful means of alleviating a wide range of symptoms is more or less within the reach of every medical man, and if it were more commonly used would break down its only objection, namely, the prejudice of the public.

The following records will illustrate the value of hypnotism for two conditions, not uncommon, in which no other remedy could have achieved the same results.

Case 1.—Mrs. H., aged 40, suffered from cancer of the right breast for about five months before seeing a medical man. Operations were performed three times in all, the last being done on October 30th, 1904. The cervical glands were on that occasion cleared out, but an adherent mass was found extending downwards behind the inner end of the clavicle beyond the advisability of removal.

Her condition on January 26th, 1905, was as follows:—(*a*) Patient is much emaciated and sallow. There is a hard mass to be felt behind the inner end of the clavicle, and portion of a scar just internal to the mammary line is swollen, angry-looking and tense. (*b*) She complains of occasional severe gripping pain deeply beneath this latter swelling and along the clavicle. Other less severe pain is always present in the chest. (*c*) There is an almost constant cough of the usual character associated with pressure on the recurrent laryngeal. This, so far, has been unaffected by any of the ordinary remedies, including codeine and morphia. (*d*) Increasing difficulty has been experienced in taking food, and for the last 24 hours even liquids and jellies have been regurgitated within a minute or two of being swallowed. (*e*) Patient becomes much exhausted on even ordinary exertion, and any attempt at lifting a weight or walking upstairs is followed by an attack of dyspnœa, with acute præcordial pain and a rapid irregular pulse. (*f*) Physical examination reveals extensive consolidation of right lung and slight nodulation of liver, also a reduplicated first sound and some irregularity of heart's action.

This picture of the later stages of a surgically-treated cancer of the breast is common enough, but the symptoms have been detailed in order to show the value as well as the limitations of suggestive treatment.

On January 27th patient was hypnotised, the method of careful prehypnotic explanation and direct gazing, aided by one or two passes, being used. Although she seemed by no means a very favourable temperament for hypnosis, a light sleep was produced in about 60 seconds. On following days this light sleep became gradually deeper, until in five days a fair degree of local anæsthesia could be produced, and memory of events during the sleep was decidedly blurred. She used eventually to go off instantly on the word "sleep."

The results of suggestion may be summarised as follow:—(*a* and *f*) The progress of the disease did not seem to be checked in any way, with one exception, *i.e.*, the redness and tenseness of the swelling in the scar was relieved, and only reappeared just before death; otherwise, emaciation and weakness gradually increased, and in a fortnight patient had to be assisted from bed to chair and back. Nodules appeared in various situations, such as the left cervical region, and the liver became rapidly larger and more irregular. (*b*) The relief of pain was naturally the chief aim, and was accomplished with remarkable success. It was found necessary to detail the symptoms and clinch each suggestion by stroking or touching the areas affected. From time to time pain appeared in new situations, such as the left clavicular region, the liver, the back, etc., evidently corresponding to extensions of the disease; but these were easily abolished at the next sitting. The patient, in short, suffered only from occasional distress, as will be shown later, and had practically no pain. (*c*) The cough was hardly, if at all, lessened in frequency, but the paroxysms were much less severe and did not exhaust the patient as previously. She was also able to sleep far more soundly and longer than before, although she continued to cough occasionally in her sleep. About a fortnight before death the character of this cough altered, and she began to spit up small quantities of fœtid pus-laden sputum. In order to prevent accumulation the cough was therefore only partially controlled. (*d*) The regurgitation of food was relieved from the outset, and patient resumed the ingestion of all kinds of puddings and meat with vegetables well cut up until about a week before death. She then went back to liquid food, and eventually had complete obstruction of the œsophagus. (*e*) The attacks of dyspnœa still continued, especially at night, but they were, curiously, not accompanied by pain, although she was obliged to sit up and lean forward, breathing rapidly. The pulse was invariably rapid and irregular, and there was much mental distress while the attacks lasted.

On February 24th liquids began to be regurgitated. On February 25th only a teaspoonful at a time of plain water could be kept down, and this could be distinctly heard trickling into the stomach on auscultating the epigastrium. All nourishment was discontinued, and moderate doses of morphia given at intervals of six or eight hours until death, which occurred at 4 p.m. on February 26th.

Remarks.—Until 30 hours before death no morphia or other drug was given. One hypnosis per diem was found sufficient, and the patient was so bright mentally, especially in the afternoons, that she was able to direct household matters from her bedroom and receive visitors up to February 23rd.

The total result was so utterly different from and so superior to the usual condition produced by morphia in the later stages of cancer, in spite of the fact that the patient was not the best of subjects for hypnosis, that the method is worthy of universal trial.

Case 2.—Mrs. S., aged 38; has history of several miscarriages and several attacks of perimetritis. For seven or eight years has scarcely ever been free from dragging pain in the left side, and has suffered severely from dysmenorrhœa and racking headaches. She was curetted and treated in 1902, and again in 1903. Each time she improved temporarily, but relapsed. In 1904 she was admitted to the Sydney Women's Hospital and curetted, the remnants of an early abortion being removed. She was 13 weeks in hospital, and had two severe hæmorrhages. For the last four or five months she has had constant dragging pain in the left side, sleeplessness, frequent dyspepsia, and severe headaches lasting sometimes two days. Her menstruation has occurred about every three weeks, is excessive in quantity, and accompanied by such acute pain that she has always had to remain two days in bed, and sometimes longer. For about one year she has steadily lost flesh and weight, and has become weaker. The above notes were taken on March 16th. She was hypnotised from that

AUSTRALASIAN MEDICAL CONGRESS

SEVENTH SESSION, ADELAIDE, September 4th to 9th, 1905

President Elect: PROFESSOR E. C. STIRLING, C.M.G., M.D., F.R.C.S., F.R.S.
Retiring President: THE HON. G. H. BUTLER, M.R.C.S., L.R.C.P., HOBART.

Under the patronage of His Excellency the Right Honourable the Lord Northcote, G.C.M.G., G.C.I.E., C.B., Governor-General of the Australian Commonwealth; the Lord Tennyson, late Governor-General; their Excellencies the Governors of the Australian States, and the Governor of New Zealand; and the Lieutenant-Governor of South Australia.

THE WORK OF THE CONGRESS WILL BE DIVIDED INTO SEVEN SECTIONS:

	PRESIDENT.	SECRETARY.
1. Medicine	Dr. Colquhoun, Dunedin	Dr. Swift, Adelaide
2. Surgery	Dr. F. Bird, Melbourne	Dr. W. Anstey Giles Dr. Charles Todd, Adelaide
3. Gynæcology and Obstetrics	Dr. W. S. Byrne, Brisbane	Dr. J. A. G. Hamilton, Adelaide.
4. Eye, Ear, and Throat ..	Dr. A. J. Brady, Dr. W. Odillo Maher, Sydney	Dr. Charles Hamilton Dr. M. J. Symons, Adelaide
5. Pathology, Anatomy, Physiology and Pharmacology ..	Prof. D. A. Welsh, Sydney	Dr. W. R. Cavenagh-Mainwaring, Adelaide
6. Public Health	Dr. W. G. Armstrong, Sydney	Dr. T. Borthwick, Adelaide
7. State Medicine & Medical Ethics	Dr. G. A. Syme, Melbourne	Dr. A. A. Hamilton, Adelaide

STATE SECRETARIES OF CONGRESS:

New South Wales: A. A. PALMER, M.B., M.S., F.R.C.S. (Edin.), 149 Elizabeth-st., Sydney
Victoria: G. A. SYME, M.B., M.S. (Melb.), F.R.C.S., 19 Collins-street, Melbourne.
Queensland: W. W. LOVE, M.B., M.S. (Edin.), 55 Wickham Terrace, Brisbane.
West Australia: A. J. H. SAW, M.A., M.D., B.C. (Cantab.), 484 St. George's Terrace, Perth.
Tasmania: GREGORY SPROTT, M.D., Ch.M., D.P.H. (Glas.), 66 Macquarie-st., Hobart.
New Zealand: J. O. CLOSS, M.D., Ch.M. (Edin.), George-street, Dunedin.
Treasurer: W. T. HAYWARD, M.R.C.S., &c., North Terrace, Adelaide.
Secretaries: B. POULTON and J. B. GUNSON, Adelaide.

The payment of One Guinea, nett, constitutes membership and entitles to a copy of the proceedings of Congress.

The Railway Departments of Australasia will issue concession tickets to members and their wives for the return journey at single fares on presentation of certificates from the State Secretaries of Congress, countersigned by the railway authorities. It is anticipated that reductions in fares, similar to those granted in previous years, will be made by the inter-State steamship companies.

If desirous of becoming a member, be good enough to sign the accompanying form and transmit it to the Secretary for your State.

It is particularly desired that members intending to be present at the Congress may inform the Secretaries without delay, so that adequate arrangements may be made for their reception and entertainment.

It is also requested that such members may indicate the ladies of their families who will accompany them.

The Executive Committee will issue early in August their programme of work and entertainment.

AUSTRALASIAN MEDICAL CONGRESS.—SEVENTH SESSION.

To...

STATE SECRETARY OF CONGRESS.

I consent to become a member of the AUSTRALASIAN MEDICAL CONGRESS to be held in Adelaide in 1905, and enclose subscription of £1 1s. nett.

SIGNATURE ....

QUALIFICATIONS ....

ADDRESS ....

date daily until April 2nd, and is now able to hypnotise herself on gazing at a paper of suggestions in my handwriting and duly signed. This is only done at and about the menstrual periods. She proved an easy subject, and became somnambulistic at about the third sitting. All memory of the events of hypnosis is abolished on waking. From the first day pain was entirely relieved. Sound refreshing sleep was established in a few days. Her appetite rapidly improved, and all dyspepsia vanished. She was able to perform her daily household duties, even washing and ironing, within a few days. This had for six or seven years been impossible without extreme fatigue and pain. She has since commencing treatment passed through two menstrual periods, the interval being nearly four weeks and the amount of flow normal. During the periods some lassitude was experienced, but no pain and no headache. Appetite and sleep were maintained, a circumstance unknown for many years. Patient's weight remained the same for several weeks, but has now begun to increase. Her appearance has altered very much for the better.

Physical examination shows a retroverted uterus and an enlarged left ovary, with considerable matting round about. Previous to hypnotic treatment the ovary was tender, but that has now disappeared.

Cases such as this, in which the woman becomes dominated by pain and reflex symptoms, due to comparatively unimportant disease of the ovary, the "senior partner of the generative firm," are exceedingly common in general practice, and either prove a fat source of income to the medical man or an unmitigated nuisance, according to the patient's financial position—generally the latter, unfortunately. They are often good subjects; at any rate they always submit themselves readily, and the intelligent use of hypnosis by practitioners, combined with other treatment, would doubtless cut away half the profits of unqualified quackery.

A SUDDEN CASE OF GOITRE.

By W. Macansh, M.B., Brighton, Victoria.

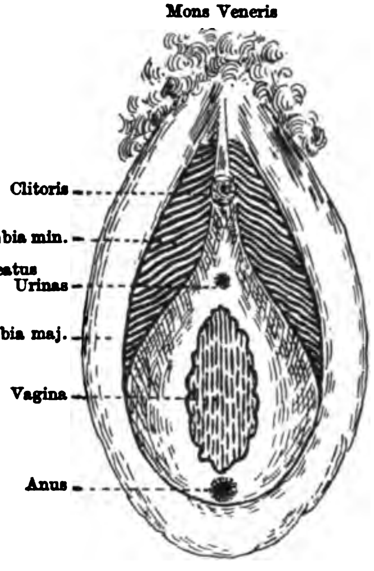
BEFORE reading the notes on the case of typhoid fever, I will, with your permission, briefly record a case of goitre developing in a few minutes. On April 5th, at 8.25 p.m., I received a message to go quickly to a house, that a young lady had a bone in her throat, and was choking. I hurried to my consulting rooms for the necessary instruments, and reached the house at 8.40. I was then told that there was no bone, but that a swelling had suddenly appeared on the patient's neck. Miss M. G., whom I knew well, and had frequently attended, was lying on the sofa, with pillows under head and shoulders. There was a large goitre present. The skin over the isthmus was white and stretched. tense, and bulging out well in front of the sternum; the veins over the tumour were prominent and distended; both lobes were enlarged, tense, and very easily mapped out by the fingers. There was no bruit to be heard over the tumour. She stated that she had felt so nervous during the evening, and that she asked her sister to stay in the room with her, and not to go out to post a letter, as she intended doing. Madge sat writing a letter, when suddenly she had a suffocating feeling, and felt a lump rising in her throat, as though it were coming up from under the sternum. She called to her sister to undo her dress, that she was choking. On the dress being undone, there was the swelling. Another sister was sent to a neighbouring house to telephone to me. The mother and two sisters and the patient herself are positive that there was no noticeable swelling in the neck previous to this sudden attack. Her younger sister, who sleeps in the same room with the patient, said that only that morning she was admiring her sister's neck while she was dressing, and that there was then no disfigurement. I cross-questioned the members of the family, and they were all confident that previous to the attack there had been no tumour noticeable in Madge's neck, and I certainly had not previously noticed it. From the time that she felt nervous until the tumour was present 15 minutes had not elapsed. There was no exophthalmos. Her pulse was 108, temperature 100°, respirations 22. On the 6th the pulse was 84, temperature 90°, patient feeling quite well, except for a stiff and uncomfortable feeling about the neck; the isthmus was not so prominent, and the whole tumour seemed smaller. 19th.—There is a well-marked goitre; no exophthalmos; the goitre is not the unsightly tumour that it was on April 5th. Pulse 84, teperature 98°.

(Read before the Victorian Branch of the British Medical Association.)

CLINICAL AND PATHOLOGICAL NOTES.

ABNORMAL POSITION OF ANUS.

SOME few months ago I was called to attend Mrs. D. in her first confinement. On arrival the baby and placenta were born, the labour having been a rapid one. On proceeding to examine the perineum for a possible laceration, I was, to my surprise, unable to see any sign of an anus. On widely separating the labia majora, however, I found the anus situated within the vulva. It was immediately behind the vaginal opening, but separate from it, occupying the position of the *fossa navicularis*. The recto-vaginal septum was perfect, there being no communication between rectum and vagina. The sphincter was normal, except that the anus and surrounding parts were moist and covered with mucous membrane instead of skin. When the labia majora were released they completely covered the anus. The patient had perfect control over the sphincter, and was quite unaware that she was different to other women. The close proximity of anal and vaginal openings caused me some anxiety lest septic trouble might follow, but the patient convalesced without a single rise of temperature. I have not been able to find records of an exactly similar case, though cases of rectum and vagina having a *common* opening have been recorded.



C. H. E. LAWES,

Petersham. M.B., Ch.M. (Syd.).

REVIEWS AND NOTICES OF BOOKS.

NAKED EYE ANATOMY OF THE HUMAN TEETH. By T. E. Constent, L.R.C.P. (Lond.), L.D.S., M.R.C.S. (Eng.). Bristol: John Wright & Co. 1905. Price, 7s 6d net.

This book requires careful revision before it can claim to be accepted as a reliable guide for students' use. The author appears to ignore the recent investigations of Hopewell Smith and others when he states that cementum is *true bone*. In his description of the antrum, also, the author's statement that the floor is marked by conical projections which correspond to the roots of the first and second molars is misleading, and does not accord with the results of recent research. The adoption of the three terms—alveolar ridge, alveolar plate, and alveolar process—to describe the one structure is unnecessary and confusing to the student. The interchangeable use of *root* and *fang* or *alveolus* and *socket* is also undesirable, especially when such use of the terms gives the impression that the *root* of an incisor is quite distinct from its *fang*. Recent writers have adopted the terms *root* and *alveolus*. The chapters dealing with the temporo-mandibular joint and the movements of the mandible are excellent. The photographic illustrations are very good, and greatly facilitate confirmation of references made to them in the text.

R.F.R.

DISEASES OF THE STOMACH AND THEIR SURGICAL TREATMENT. By A. W. Mayo Robson, F.R.C.S., and B. G. A. Moynihan, M.S. (Lond.), F.R.C.S. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 15s net.

This book, first published in 1901, now in its second edition, contains nearly 200 more pages. We are told in the preface that it has been thoroughly revised and in greater part rewritten. It is essentially a surgeon's book. Great stress is laid upon the importance of early diagnosis in cases of cancer of the stomach. We are told, "Whenever a patient over 40 years of age complains of gastric uneasiness, pain and vomiting, followed by progressive loss of weight, secondary anæmia and so forth, the possibility of cancer should at once be recognised. . . . To await the development of a tumour before consenting to a diagnosis of malignant disease and advising operation is to prove oneself in ignorance of the real issues at stake. Cancer of the stomach should be dealt with surgically before a tumour is clinically recognisable." Many surgeons will assent to these conclusions, but will physicians? The book is well got up and is admirably illustrated.

C.P.B.C.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY FOR 1905: A Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery. Under the editorial charge of George M. Gould, A.M., M.D. In two volumes. Volume I, including general medicine; Vol. II, general surgery. Two octavos of about 700 pages each, fully illustrated. Philadelphia and London: W. B. Saunders & Co. Melbourne: Jas. Little. 1905. Per volume, 13s each.

We are again favoured with a copy of Saunders' American Year-Book of 1905. This admirable publication continues to maintain a high level of excellence as a guide to the more important advances which have been made in medical and surgical science and practice during the year. The amount of literature which is now issued from the press in every department of medicine and surgery renders a full record of these subjects quite impossible within the scope of these volumes; but we have in this Year-Book a useful summary not of every paper published but of the most important advances which have been made. The work is edited by specialists eminent in their own department and is illustrated by some useful diagrams and pictures. We have again to note the comparatively few references made to Australasian medical literature. If this be due to an oversight on the part of the reviewers, we hope it will be remedied in future issues; if it be due to want of merit or importance in the scientific or practical output of the Australasian medical profession, we hope that this will in future be such as not to merit the contempt of our American cousins. G.E.R.

American Edition of Nothnagel's Practice: Diseases of the Intestines and Peritoneum By Dr H. Nothnagel. Edited with additions by Humphrey D. Rolleston, M.D., F.R.C.P., Physician to St. George's Hospital, London. Philadelphia: W. B. Saunders & Co. Melbourne: James Little. Price, 25s.

This work of Professor Nothnagel, translated from the German by Dr. Alfred Stengel and edited by Dr. Rolleston, is probably one of the most complete and exhaustive that has yet been published on this subject. The first 35 pages are devoted to the chemical processes that occur in the intestines, by Dr. Fritz Obermayer. This is followed by a chapter on the Bacteria of the Intestines, by Professor Julius Mannaberg, ending with a very long list of references to the literature of the subject. But bibliography is a feature in this book, over 40 pages being devoted to it at the end of the volume. Appendicitis is very fully gone into from the point of view of a physician; under the heading of "Prognosis," he says "the majority of cases recover, but the outcome can never be foretold, and an unfavourable turn may occur at any moment. The medical man can, therefore, only say, in the early stages, or later in the stage of resolution, when the disease is running a favourable course, that the patient at the actual moment is in no immediate danger, but that the next hour may be fraught with serious consequences; and, just as in typhoid, there is always the possibility and dread of intestinal hæmorrhage or perforation, so here complications are always possible." Yet under the head of "Treatment" we find: "Should the medical attendant recommend operation in every case, or at least in the vast majority of cases, or is the so-called internal treatment indicated and successful in a certain number of cases? Since a definite answer must be given, we are of the latter opinion." The section on Intussusception has been much added to by Mr. D'Arcy Power. The anatomy and etiology of this subject are therefore very ably dealt with. C.P.B.C.

The Principles and Practice of Asepsis. By A. S. Vallack, M.B., Ch.M. (Syd.), Surgeon to Berrima District Hospital, N.S.W. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 2s 6d.

This handy little book is certainly the work of an enthusiast, and gives ample evidence of the fact that asepsis is the author's hobby; and, after all, what better hobby can any lover of his profession have. He has culled his impressions from aseptic champions, and shows an intelligent conception of the varying virulence of the infection and the value of tissue resistance. We can hardly agree with the author's conclusions in many instances. He says custom has very wisely relegated the practice of midwifery to physicians rather than to surgeons, otherwise our mortality from puerperal fever would be even more deplorable than at present. Dr. Vallack evidently thinks little of the craft. Surely a true surgeon should know that without which surgery becomes mere carpentry. The use of rubber gloves is strongly advocated, but we think their use has limitations. Even thin rubber gloves spoil a surgeon's tactile sensation. This matters little in open wounds, but in difficult abdominal cases where it is not to the patient's advantage to have a large wound made, gloves are impossible. The thinner the glove, the more liable it is to puncture, and thick gloves make an assistant very clumsy. The possibility of puncture by the nipping of forceps or scissors, or the prick of a needle, is by no means a remote one, and the result would be disastrous. Many men do use their naked hands, and surgeons engaged in active work, operating every day and often many times a day, find it impossible to avoid accidental fouling of their skin, and yet these same men can and do conscientiously cleanse their hands without infectiong their patients. The author's method of sterilising catgut is an excellent one, but there are simpler and equally effectual methods. Gauzes and towels and coats may be boiled in a bag, and kept in the bag while they are being wrung out. They may be dried and hung up in the kitchen or the garden. They are thus sterilised equally as well as in a 60-guinea steriliser; and that is what the general practitioner wants to know. The surgeon who really is a surgeon knows all the refinements and details of his science from the perusal of the detailed accounts of scientific workers. The importance of mechanically cleansing instruments is rightly urged, but neither soda nor lysol interferes with the keen edge of an instrument; great heat certainly does do so. The appendix teaches the observant surgeon more than all the rest of the book, and the author shows his wisdom in presenting cases which though disastrous in themselves afford most valuable instruction. Nurses should be taught to dress septic cases without soiling their hands, as well for their own sake as for that of others, and if they act as assistants they should be taught to sterilise their hands whether they use gloves or not, and the wise surgeon sees that this is done. The author states in the appendix that two cases died because the matron's hands carried infection from septic wounds. He then adds that Lockwood's method was used for sterilising her hands, insinuating that the method was at fault. This is a pity, for most of us know that Lockwood's method has proved itself to be an excellent method of sterilising the hands. The permanganate method of Schimmelbusch, one of the soundest aseptic surgeons who ever lived, is simple and absolutely effective if carried out thoroughly. The methods are good enough, but the fault lies with those who misuse them. The success which attended the work of Listerian surgeons years ago was probably due to the frequent washing of their hands in an antiseptic lotion during the course of a long operation. There is much sound sense in this book; but if the author's asepsis were tempered with a judicious amount of antisepsis it would be the better for it. H.C.H.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH JULY, 1905.

THE SCIENTIFIC TRAINING OF MEDICAL PRACTITIONERS.

It is a significant fact that the Royal College of Surgeons of England have decided to consider the question of the desirability of treating chemistry, physics and biology as subjects of preliminary education, and requiring that an examination in them should be passed before the recognition of the commencement of medical studies. They have also decided to consider the desirability of approaching the universities and other licensing bodies with a view to the adoption of a five years' curriculum of professional study from the date of passing the preliminary scientific examination.

We cannot fail to see the far-reaching importance of these two questions, and there is every prospect of there being keen discussions upon them. If these suggestions acquire the force of regulations of the General Medical Council it will be necessary for the High Schools to undertake a fairly high standard of scientific teaching. These subjects cannot be properly taught except by fully qualified and trained scientific teachers, and the teaching is only effective if accompanied by practical laboratory work. It is not easy to see how this can be accomplished by the schools; in fact, it is doubtful if it can be undertaken at all except by colleges and universities with the necessary teaching staff and laboratory equipment. But it is significant to note that the importance of a proper preliminary training in scientific methods of thought and work is coming to be duly recognised if the medical men of the future are to be in a position to fully grasp the trend of modern developments both in pathology and therapeutics. A student who has no knowledge of chemistry, either theoretical or practical, is quite unable to follow modern teaching of chemical physiology and pathology; and judging by the advances which are now being made in this direction, and in the practical application of these subjects to therapeutics, a knowledge of theoretical and practical chemistry will become even more necessary in the future than in the past.

The second proposition, that the period of medical study proper should be lengthened by a year, is evidence that it is realised by those competent to know that four years is insufficient for a student to acquire a knowledge of even the fundamental principles of the science and practice of medicine. Various suggestions have been made to meet the difficulty, since it is recognised that the prolongation of the ordinary curriculum by a year entails a considerable increase in the expense of medical education. In some of the American colleges and our own Australian Universities an attempt has been made to meet this difficulty by allowing students to specialise in certain departments, so that instead of requiring a full knowledge of all the subjects of the final examination a student may be required to pass only in certain groups of subjects. The tendency of the age towards specialisation is obvious, since it is well known that no one man can be *au fait* with all departments of medical and surgical practice, and this is reflected in the current alteration in the medical curriculum. We are not sure, however, that specialisation in the curriculum is altogether a wise step, since no one can be a successful specialist who has not had a good grounding in all branches of medicine and surgery. This can only be acquired by the practitioner in his student's career or by some years of general practice; and we are disposed to think that a prolongation of the medical curriculum by a year, though objectionable from some points of view, is yet, at present, the most satisfactory solution of what is becoming more and more a difficult problem.

CANCER RESEARCH.

While much has been done in recent years in the attempte to elucidate the problem of the etiology of cancerous growth, we venture to think that no discovery is of more importance or so full of promising results as that communicated to the Royal Society of London by Dr. **Benjamin Moore**, Professor of Bio-Chemistry in the University of Liver. pool, in conjunction with Drs. **Alexander Kelly** and **Roaf**, of the same University. An abstract of this paper was published in the *Lancet* of April 29th of this year, and deserves the careful study of all interested in this question. The paper is not only of importance from the point of view of the pathology of malignant growths, but also as opening up new fields of investigation for the student of physiological chemistry.

It has been known for some years past that in the large majority of cases of cancer of the stomach there is an entire absence, or, at any rate, a great diminution, in the quantity of free hydrochloric acid in the gastric secretion, quite independent of the exact situation of the growth in the stomach. These investigators, however, have now gone a step further and proved that free hydrochloric acid is absent or greatly reduced in amount whatever may be the situation in the body of the malignant growth; and, further, that so far as their observations have gone, after removal of the growth there is not a reappearance of the acid in the stomach. As these authors state, this " tends to show that there is a persistence of those conditions in the body tending to favour re-formation of new growths," but we think it also shows that the absence of the free hydrochloric acid does not depend upon some change produced in the body by the growth, but is an indication of some primary etiological condition. But the exact cause of the disappearance of acid from the stomach in these conditions has not yet been determined, and many points await further investigation. Given, however, a persistent alteration in the reaction of the blood plasma, analogy would lead us to expect a greatly increased cell growth and cell division. The authors quote some observations of **Loeb** on this point. He points out that the addition of a minute quantity of alkali to sea water causes an enormous development and growth of the eggs of the sea urchin, while a further increase in the amount of alkali stops the growth entirely. The authors point out, further, that " if there be a potential tendency to a typical cell growth and mitosis, to reversion to the sexual type of cell reproduction, an alteration in the chemical reaction of the blood plasma may form the necessary chemical stimulus to start a new growth, and determine its continuance and exuberance when started." The reason why there is a decrease in the concentration of the hydrogenlions and an increase in the hydroxylions in the blood of carcinomatous patients lies apparently at the root of the whole matter, and if once this problem can be satisfactorily solved we shall soon arrive at the true etiology of malignant growths. For, if there be some alteration in the chemical reaction of the blood plasma which can act as a powerful stimulus to cell growth, we can understand the reason for the development of cancers at the common sites of election of such growths, since at these sites we find the special epithelial and glandular cells in a state of abnormal irritation and growth. But what determines the increased alkalinity of the blood plasma in these patients ? Is it in any way associated with the invasion of the system by an organism, or is it the result of some disturbance in the nervous control of the body metabolism somewhat akin to what we see in acidosis and diabetes ? These are points which require further investigation ; but we think we can affirm that the scientific world has never been nearer to the solution of the cancer problem than it is to-day.

THE MONTH.

The Australasian Medical Congress, Adelaide, 1905.

The arrangements for the approaching Australasian Medical Congress, to be held in Adelaide on September 4th-9th, are well in hand. A preliminary list of papers promised for the different sections gives promise of some useful discussions. We would remind our readers that all medical men who intend to become members of Congress should at once fill in the application for membership in the inset advertisement opposite page 322 of our present issue, and forward it with their subscriptions to their State secretaries. The general secretaries also request that synopses of promised papers, or copies of the papers themselves, should be sent to them not later than August 15th. In addition to the strictly scientific work of the Congress, a large room in the Adelaide University will be set apart for the exhibition of surgical instruments and pharmaceutical preparations. It is desirable that intending exhibitors should notify the secretaries of their intention and also the space required as soon as possible.

Prescribing Opticians.

A correspondent in the Sydney daily press calls attention to a matter upon which he considers some legislation is urgently required. He states that the eyesight of the people is "seriously endangered by the large number of quacks, bogus opticians, cheap spectacle retailers, etc., who ruin the sight of thousands by their treatment of defects which could have been cured if the sufferers had placed themselves under the treatment of a properly qualified man." The position is made worse by the use of some mysterious letters by some opticians, by which the public may be misled into believing that these gentlemen are legally qualified medical practitioners and are specially qualified to deal with all diseases and defects of the eyes. The correction of errors of refraction, which appears to be entered into by these prescribing opticians with a light heart, is often a matter of extreme difficulty, and for its successful accomplishment requires often much more extensive knowledge than merely that of the principles of optics. In fact, it cannot be done except by a fully qualified medical man who is fully conversant with the close association that frequently exists between eye defects and constitutional disturbances. Unless some legislative restriction is imposed upon prescribing opticians we suppose that they will continue to be patronised by a section of the general public who trust in the heaven-born genius of a quack rather than in a properly qualified and educated medical practitioner.

The Protection of Infant Life in Victoria.

In Victoria the mortality amongst boarded-out infants is stated to be 25 per cent., while in South Australia the death rate is only 8 per cent. This fact was made use of by a deputation of women which recently waited upon the Chief Secretary of Victoria to urge the appointment of a woman inspector under the Infant Life Protection Act. At present the duties of inspection are performed by the police ; but it was rightly pointed out by the deputation that these duties could be much more efficiently carried out by women. In South Australia there are women inspectors, and the deputation expressed the opinion that if a woman inspector were appointed in Victoria the welfare of boarded-out infants would be better safeguarded. Sir Samuel Gillott agreed with the views of the deputation, and promised to secure an amendment of the Act, if that were necessary, to enable the Government to appoint women inspectors for this purpose. This is a matter of vital importance, not only in the interests of the unfortunate infants themselves, but also in the interests of the State, by helping to stay the present tendency towards a decrease in the population of Victoria.

The Licensing of Nursing Homes in New Zealand.

One of the recommendations of the New South Wales Birth Rate Commission was that nursing homes and private hospitals should be under some system of supervision or licensing, but so far nothing in that direction has been accomplished. In New Zealand, however, these institutions are licensed by the Health Department, on the recommendation to a large extent of medical men and on inspections from time to time. Institutions for the treatment of mental cases, however, are not licensed by the Health Department, but by the Lunacy Department under the Lunacy Act. According to a report by Dr. Finch, District Health Officer, there are 45 nursing homes in the Canterbury Health District, 14 of which are known to the department in that city. Of these, 12 have been licensed or have been recommended to be licensed, and in the other two some improvements and alterations are required before a license will be granted. We should be glad to see some such system of licensing and supervision adopted throughout Australia.

The Spitting Nuisance.

Some two or three years ago when the question of the prevalence of pulmonary tuberculosis and the means to be adopted to prevent its spread were perhaps a little more prominently before the public than at present a by-law was passed by the Sydney Municipal Council prohibiting expectoration on the footpaths in the city. A breach of this by-law was punishable by a fine of £2, and several persons were brought before the police courts for infringement of this regulation. It seems, however, that this by-law at the present time is more honoured in the breach than in the observance, judging by the absence of prosecutions for this offence. This is a matter which might well engage the attention of the State branch of the National Association for the Prevention of Tuberculosis. We think that this body might go a step further and agitate for the infliction of a penalty for expectoration in railway and tramway cars and in the ferry steamers. Unless these regulations are enforced, the efforts made to prevent the spread of pulmonary tuberculosis will be largely nullified.

Law and Medicine.

At a recent inquest in Melbourne on a case of death under chloroform which occurred in the Alfred Hospital, Melbourne, an incident occurred which has created a considerable stir in the profession in Melbourne. The coroner, Dr. Cole, took the evidence of two of the medical men and of the nurses, but did not examine Dr. Hearne, the anæsthetist. At the conclusion of the evidence the coroner asked Dr. Hearne whether he wished to give evidence, and at the same time cautioned him in the same language as is used in cautioning a person in custody on suspicion before the Court. This led to some warm arguments between Dr. Hearne and the coroner, and the latter, without hearing any evidence from the only witness who could know all the facts of the case, promptly closed the inquiry, and gave a verdict of death from misadventure. Such a proceeding necessarily calls for comment, and both the leading medical societies of Victoria have passed resolutions condemning the action of the coroner, and have made representations to the Solicitor-General upon the subject. While we have every sympathy with Dr. Hearne and with the endeavours of the profession in Victoria to prevent the recurrence of such an incident, it must be borne in mind that a coroner has practically all the powers of a Supreme Court Judge, and necessarily holds an independent position. The Crown Law authorities are consequently not disposed at any time to interfere with a coroner in the exercise of his duties unless he is guilty of gross incompetency. We hope, however, in the interests of the medical profession, of which he is himself a member, that Dr. Cole will not be guilty of such a mistake again.

Sanatorium for Female Consumptives in New South Wales.

The sanatorium at King's Tableland, Wentworth Falls, New South Wales, is devoted entirely to the treatment of males suffering from pulmonary tuberculosis in the early stages. The hospital at Thirlmere has hitherto been utilised for women suffering from this disease in the early stage and for men in a more advanced condition. It has been felt for some time past that this was not satisfactory, and a recent meeting of the executive of the Queen Victoria Homes for Consumptives was held to consider the policy to be adopted with regard to this institution. The freehold of the estate has recently been acquired by the fund with the intention of conducting it on similar lines to those adopted at the sanatorium at King's Tableland, and it was decided to convert the Thirlmere Home into a sanatorium for consumptive women suffering in the earlier or curable stages of the disease, to be administered in conjunction with and on similar lines to the sanatorium for men at King's Tableland. No more male patients will therefore be received at Thirlmere. It is hoped that the necessary funds for the building and equipment of the sanatorium for women, which may cost approximately £5000, will be raised by the women and for the women of New South Wales during the next 12 months.

The Jubilee of the Melbourne University.

The University of Melbourne attains its jubilee next year, and preparations are already in progress to celebrate the event. It is proposed to erect a pavilion on the University Cricket Ground as a suitable memorial, and a committee has been formed to secure the necessary funds. Since the ground was formed only a temporary building has been erected, and it is proposed to replace this by a suitable and substantial structure, the estimated cost of which is £800. Towards this sum £400 has already been promised, and the balance will probably be realised as the proceeds of the recent ball and of a concert to be held in the Wilson Hall on August 1st in the presence of his Excellency the Governor and Lady Talbot, the Chancellor and Lady Madden, and the Vice-Chancellor and Lady Wrixon.

The Housing Problem in Tasmania.

Some interesting information has recently been supplied to the *Hobart Mercury* by Mr. R. M. Johnston, the Government Statistician, regarding the proportion of small tenements in Tasmanian and English centres. The dwellings are divided into three classes—class A, consisting of less than 3 rooms; class B, 3 to 4 rooms; and class C, 5 or more rooms. The term "dwellings" includes in Tasmania miners' huts, in which more than one room is an exception. Taking the census returns for 1901 it is found that in Hobart there are 4·41 per cent. in class A, 36·40 in class B, and 59·29 in class A. In Launceston there are 2·74 in class A, 37·87 in class B, and 59·49 in class C. Taking Tasmania as a whole, there are 12·54 in class A, 38·50 in class B, and 48·96 in class C. In the principal cities and towns of England and Wales the figures are 13·00 in class A, 33·80 in class B, and 53·20 in class C.

Join a Medical Defence Association!

We hope that every practitioner in Australasia will take warning from the recent action brought by a farmer on the Richmond River against Dr. F. G. Connor, late of Lismore, to recover £5000 damages for alleged neglect and unskilful treatment. It appears that the plaintiff in the case had his leg badly broken in two places by a loaded cart falling upon him and pinning him to the ground. For this accident he was treated by Dr. Connor, but it was not until some considerable time afterwards that the patient determined to bring an action for damages. In the unfortunate position in which he was placed, through no fault of his own, Dr. Connor had the valuable assistance in his defence of Drs. MacCormick, Clubbe, Fiaschi and R. Steer Bowker, and the jury returned a verdict for the defendant. We heartily congratulate Dr. Connor upon his successful defence, and regret for his own sake that as he was not a member of the New South Wales Medical Union he will be compelled to pay heavy legal expenses. It is the duty of every medical practitioner to defend himself against these unfounded charges of neglect and unskilfulness to which he is daily exposed in the course of his professional work, and to this end we would strongly advise every medical man in New South Wales to join the Medical Union, and medical men in other States to join their State medical defence associations. For a small annual fee of £1 1s. the Medical Union undertakes to pay for legal expenses a sum not exceeding £500 to any member of the Union who is called upon to defend himself in an action at law.

The Crisis at the Brisbane Hospital.

The financial position of the Brisbane Hospital, which has for some considerable time past been highly unsatisfactory, has now become acute. At the end of June the committee found themselves without funds, with a sum of something like £4600 owing on the current expenditure, besides £1500 due to the Government on a loan of £3000. Finding themselves in this position, members of the committee decided that the only course open to them was to resign in a body, and at a special meeting held on July 8th the resignations were formally signed by each and every one of them, and these resignations were handed to the Home Secretary on July 10th. The committee felt that when they did all in their power to administer the funds of the hospital with care and economy they should not be called upon to do more.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

The monthly meeting of the New South Wales Branch of the British Medical Association was held at the Royal Society's Rooms, Elizabeth-street, on June 30th, Dr. Antill Pockley (vice-president) in the chair, and there were about 60 members present.

The minutes of the last meeting were read and confirmed.

The Vice-President announced the election of the following members:—Dr. H. R. Letcher, Cobar; Dr. P. H. Boyden, H.M.S. "Prometheus"; Dr. H. F. Alsop, Mosman; Dr. R. F. Jones, Samarai, British New Guinea. And the following were nominated for election:—Dr. A. Neumann, Wilcannia; Dr. S. A. Smith, Killara; Dr. W. H. Lang, Corowa; Dr. V. Benjafield, Lambton.

Dr. Fiaschi exhibited:—(1) A foreign body extracted from bladder—the petiolus of a nasturtium leaf (the *Tropœolum majus* of botanists), 14 inches long. This had been introduced in his urethra by a lad 16 years old, for lascivious toying, and in a moment of rapture it suddenly disappeared to sight and touch. The lad was wise enough to go immediately to his doctor and confess his folly. He was sent to the Sydney Hospital on the following morning and brought under my care. He then did not complain of pain or difficulty in micturating, but was impatient to have the stalk extracted, that his parents might not know of it. Without anæsthesia I at first passed in the urethra a urethral forceps, but could not feel or seize anything; then passed in the bladder a medium-sized lithotrite and felt an unusual body. Luckily a spasmodic miction occurred, and I, seizing the opportunity, withdrew the lithotrite with blades half open to the internal meatus. On closing the blades and moving them about I found that I had hold of some loose body, and on gently drawing out the lithotrite I brought out the exhibit. This was doubled in fours, and this little bundle had been seized by the lithotrite near one of its ends. The nasturtium plant grows very luxuriantly in our gardens, and if you examine some of these long fresh leaf stalks you will see that they are very similar in shape to a whip bougie. (2) The right arm of a man 65 years old, amputated to-day by me at the shoulder-joint. This man came to the Sydney Hospital two years ago, suffering from an epithelioma of the dorsum of the right hand. At the time he had no glandular infection, so I limited myself to amputate the forearm in its middle. Six months later he returned, complaining of a lump in right axilla. I found a few of the superficial lymphatics enlarged: but to make sure I thoroughly emptied out the axilla of all its lympathic vessels and glands. Some of the latter were found to be epitheliomatous by Dr. Ambrose, our then resident pathologist. At that time no sign of infiltration of the brachial lymphatics could be discovered. The man has enjoyed good health since, but for the last nine months has noticed some lumps on the inside of right arm, which in spite of my warning he overlooked. On his admission to hospital this week I found these lumps presented all the characteristic sign of carcinomatous infiltration of the whole chain of lymphatic glands on the inner side of the right arm, but the scar of first amputation remained quite sound, and no sign of disease could be felt in axilla, hence the amputation at the shoulder-joint. I think that this exhibit is an eloquent proof of the generally-accepted surgical law, that to have a radical operation for the cure of carcinoma you must not only remove the primary growth but the entire chain of glands and lymphatics draining the infected region, whether at the time they appear involved or not. This we can easily enforce on our patients in cases of carcinoma of the breast or tongue or lip, where no great loss of function follows the radical operation. It is, however, a very difficult matter to carry out in the case of a limb, where to obtain complete removal of all suspicious lymphatics means, in a very large number of cases, a high amputation. Fortunately, cases of carcinoma of the extremities are not so common as those in the breast; but if we intend to give these cases the same prospects of complete recovery as the latter, we should carefully collect statistics of them. In these we should tabulate the results of the two courses—(1st) dissection of the lymphatic chain likely to be involved; (2nd) high amputation. After a time we shall have a sufficient number of cases to decide which is the best course, and we shall then be able to enforce it with authority on our patients.

Dr. MacIntyre Sinclair read a paper on "Some Cases of Arrested Pulmonary Tuberculosis from King's Tableland Sanatorium," and exhibited some 18 cases. (See page 303.)

The Chairman said he thought they were much indebted to Dr. Sinclair for his paper and for the excellent demonstration of cases. He thought that an eloquent testimony to the efficiency of the treatment, and the attention of the meeting was evidence of the interest with which it had been received. He hoped to hear some discussion upon it.

Sir Philip Sydney Jones said he quite agreed with the Chairman's expression of their indebtedness to Dr. Sinclair for the paper and the demonstration of the curative effects of the open-air method of treatment of pulmonary tuberculosis. A practical lesson of that kind was of infinitely more value than any number of papers. He thought they must all have been struck with the fact that though the patients had been stripped none of them had coughed. They must also have noted their good muscular development generally. On examination of the chests, though there were still some signs at the apices, such as slight dulness on percussion and some roughness of the breath sounds, yet no moist sounds were audible. In cases of arrested pulmonary tuberculosis in which considerable destruction of tissue had taken place, certain physical signs were found, even to old age, such as dulness and roughened respiration, since the lung tissue never returned to its normal condition. The dense fibrous tissue which was formed in the process of healing was the cause of these signs. He quite agreed with every word which Dr Sinclair had said, and consequently he had no criticisms to offer on the paper. He thought no one could take exception to anything he had said. He felt the urgent necessity that existed for the adoption of some uniform system of classification in reporting cases of this disease. He thought they should in the meantime adopt Turban's classification, which corresponded pretty closely with that used by Dr. Sinclair. Turban's classification is as follows:—Stage 1: Slight affection of not more than one lobe or two half lobes. Stage 2: Slight affection of not more than two lobes, or severe affection of not more than one lobe. Stage 3: All beyond stage 2. This was a practical and useful classification, and he would urge his *confrères* to adopt it. The different systems of classification employed at the various sanatoria in Europe rendered it difficult to compare results. He wished to refer for a moment to a class of cases which were disappointing in their response to this and to every method of treatment. These were the cases with perhaps very few physical signs, but which they knew, from their appearance and from the rapidity of the circulation, had little resisting power and would rapidly go to the bad. The resisting power of the patient was a most important factor in the prognosis of a case. Dr. Sinclair had very rightly dwelt on the importance of *rest*. Personally, he had found that to be the greatest trouble in dealing with private patients in their own homes. It was an unfortunate thing that they had no sanatorium in New South Wales for the better class of patients under the direct supervision of a medical man. That was a very real necessity at the present time, and he felt confident that if such an institution were started it would prove a paying concern. He was sure that the failure to get good results in the treatment of private patients was most often due to want of sufficient rest. The patients would take plenty of nourishment and live in the open air; but they generally failed to see the necessity for rest, and the neglect of this, especially when the temperature was raised, militated against their recovery. In conclusion he would point out that one of the chief difficulties encountered was the getting the patient to enter the institution at an early period of the disease. The cases exhibited that night showed, he thought, the possibility of permanent arrest of the disease.

Dr. **Wilkinson** congratulated Dr. Sinclair on his paper and on the demonstration of cases. He felt, however, that their own sanatorium must follow in the lines of others in older countries; and the growing tendency was to consider not so much the resistance of the patient as the virulence of the bacillus. Recent experiments showed that one element in the etiology of tuberculosis had been to a large extent ignored, and that was the varying virulence of the bacillus. They had had that night a demonstration of successful cases and some statistics, but cases of that disease were so variable that in some, as a result of *any* treatment, or even of *no* treatment at all, the disease proceeded to arrest. The cases treated at the sanatoria were all selected cases, and therefore the exhibition of a few selected cases of those selected for sanatorium treatment did not give a true reflex of the success of the treatment on the disease as it occurred in the community as a whole. Could any method of treatment which could cause arrest of only 50 per cent. of cases for two or three years be considered satisfactory? The tendency at the present time was towards the adoption of a method of treatment similar to that used in other infectious diseases. The evidence was incontestable that the tubercle bacillus was a variable factor, and a truly scientific method of treatment must take note of that fact. He did not hesitate to say that the progress in sanatorium treatment would be along scientific lines, and the most important element in producing immunity was tuberculin, and it was now admitted that tuberculin was a harmless and valuable diagnostic agent. He strongly urged the adoption of a uniform system of classification, and that now adopted in Germany was the classification advocated by the Imperial Board of Health in Berlin. The success of the sanatorium treatment in Germany depended on a selection of the cases admitted, and some definite system of classification was essential. Those interested in sanatoria took care to publish their results directly after the patients were discharged from the sanatorium. Dr. Sinclair had reported and shown some cases 18 months after their discharge; but he would be interested in knowing the condition of these patients in, say, four or five years' time. It was usually not till some three, four, or even five years after discharge from the sanatoria that patients began to break down again, and it was not possible to speak of any case as cured until it ceased to react to injection of tuberculin. It was only by the injection of tuberculin at intervals of, say, six months that it was possible to say if a case were progressing towards obsolescence. So long as a reaction was obtained after tuberculin injection the disease could not be considered as cured. By the use of tuberculin in proper doses and for a sufficient time, he considered it possible to get cures in 100 per cent. of early cases. Tuberculin was also a specific for checking hæmorrhage. He had never had a case of pulmonary hæmorrhage after the patient had once been placed under tuberculin treatment, and his experience in this direction agreed with that of others. Tuberculin also prevented the dissemination of the bacilli, contrary to what was originally said by Virchow and others.

Dr. **Sinclair** thanked the members present for the cordial way in which they had received the paper. The necessity for a uniform classification was recognised. He agreed with Dr. Sydney Jones that occasionally one met with even early cases in whom the natural resistance was so small that they went from bad to worse in spite of all treatment. At King's Tableland, of 20 cases in the earliest stage (Turban, stage 1) up to December, 1904, 19 completed the course of treatment, and every one of these made an apparently complete recovery. At the same time, he did not believe in quoting percentages from a small series of cases, as the statistical error was obvious. In regard to Dr. Wilkinson's remarks, he did not wish to enter on a discussion of tuberculin treatment at that meeting; but the necessity for caution was obvious when they remembered that almost every clinical teacher of repute in London had declared against its use. Nevertheless, they must not forget that the use of tuberculin products was in accord with modern theories of immunity, and therefore deserved consideration. If it could be shown that the addition of specific treatment would still further improve the results at King's Tableland, he would be prepared to use it. The difficulty lay in determining how much of the improvement, if any, was due to specific treatment, and how much to the associated hygienic measures. The selection of cases was a further important factor, and it was unfair to compare the results of treatment in a selected group with an unselected group. If tuberculin would cure cases which had already failed to respond to open-air treatment alone, then they would have absolute proof of its value. The sanatorium treatment had unaided produced results of which they had good reason to be pleased, and it ought, therefore, to be the basis of any additional treatment, whether specific or otherwise. In regard to the after results of sanatorium treatment, Dr. Sinclair said he might have gone further afield and quoted the figures of Dettweiler, Meissen, and Trudeau for periods of 2 to 17 years, figures of a most encouraging nature. He had, however, endeavoured to bring under their notice what was being attempted in our own State, and he had shown them cases dismissed in the first batch two years ago, who had remained well and in employment up till the present moment. He hoped to follow the history of those cases still further, and to have the opportunity of again bringing them under their notice at some future date.

Council Meeting.

The Council met at the Association Rooms on Tuesday, June 13th, 1905.

Present: Drs. Pockley, Rennie, Brady, Hinder, Abbot, Hankins, Jamieson, Crago, Maitland, Worrall, Dick, and MacCormick.

The minutes of the previous meeting were read and confirmed.

The following members were elected:—Dr. H. R. Letcher, Cobar; Dr. P. H. Boyden, H.M.S. "Prometheus"; Dr. H. F. Alsop, Mosman.

Letter from Dr. Carruthers, of Balmain, with reference to the question of payment of fees for information in certain cases of sudden deaths where inquests are dispensed with. Resolved—"That Dr. Carruthers be informed that medical practitioners are not bound to give the information mentioned, and that the hon. secretary be authorised to see Dr. Ashburton Thompson about the matter."

The hon. secretary of the Western Suburbs Medical Association, forwarding the following resolutions:—"That no member of this Association shall sign any agreement with any lodge which provides fixed fees for operations; such operations and also anæsthetics and consultations requiring other medical men shall be a matter of arrangement between the medical officer and the patient." "That no member of this Association sign any agreement that he is responsible for telephone messages." "That in future no member of this Association shall bind himself to administer chloroform in accouchement cases without extra fee." Resolved—"That this action of the Western Suburbs Medical Association be endorsed."

Letter from the Western Districts Medical Association with reference to hospital abuse. Resolved—"That the action of the Association be endorsed."

Widows and Orphans' Fund.—Resolved—"That the return of the half commission from agents be refused."

Letter from Mr. Syme, Melbourne, stating that the first resolution, as passed by the Victorian Branch, could not be accepted. Received, and letter to be communicated to the Victorian Branch.

Letter from a country member, stating that he was prepared to resign his position if the Council thought he had done anything wrong. (Copy of agreement between this member and the lodge was received.) Resolved—"That the hon. secretary's letter be endorsed." Resolved—"That the Council condemns the action of the member in accepting the position of medical officer to the lodges."

The hon. treasurer was authorised to make inquiries about new rooms for the Association.

Dr. Jamieson proposed—"That a sub-committee of three be appointed to take into consideration the scheme for the reorganisation of the Branch, and that Drs. Pockley, Maitland, and Dick form the committee." Seconded by Dr. Hankins and carried.

Resolved—"That the hon. secretary be authorised to countersign all cheques in future."

Resolved—"That Dr. Dick be appointed librarian in place of Dr. Jamieson."

A vote of thanks was accorded to Dr. Jamieson for his valuable services.

Ballarat.

The ordinary bi-monthly meeting of the above Branch was held at the Ballarat Hospital on May 25th, at 8.30 p.m.

Present: President (Dr. T. A. Wilson), Drs. Campbell, Gardiner, Langmore, Mitchell, Morrison, Steell, Sloss, and Usher.

Apologies: Drs. Champion, Courtney, Jordan, Richards, Affleck Scott, Robt. Scott.

Minutes of last meeting were read and confirmed.

Correspondence received from Victorian Branch B.M.A., Dr. J. Jamieson, Coroner and Secretary to Law Department *re* post-mortem fees.

Accounts for 14s 6d passed for payment.

Dr. T. A. Wilson read a paper on "Hydatid of the Liver."

Dr. Langmore read notes on four cases of hydatid of lung, and exhibited one patient, together with a skiagram of the case. He also reported a case of very large extra-peritoneal cyst.

The following exhibits were shown:—Two cases suppurating hydatid of liver, two cases carcinoma of stomach, papilloma of anus, two cases extra-uterine gestation, ruptured extra-uterine gestation with ovarian cyst and inflamed appendix, ovarian cyst, malignant disease of forearm.

The meeting then terminated.

South Australia.

The 26th annual meeting was held at the Adelaide University on June 29th.

The retiring president (Dr. C. W. Hamilton) presided over an attendance of about 40 members and visitors.

Minutes of last annual meeting were read and confirmed.

Annual report of Council and treasurer's statement for 1904 were adopted.

BALANCE-SHEET FOR YEAR ENDING DECEMBER 31ST, 1904.

Cr.	£	s.	d.
Balance in bank, 31-12-03	162	2	6
122 Subscriptions	256	4	0
4 Half Subscriptions	4	4	0
1½ Arrears	3	3	0
Capitation grant	1	10	0
Interest	6	2	11
	£433	6	5
Less one sub. paid direct to London	1	5	0
	£432	1	5

Dr.	£	s.	d.
Paid to parent Association	131	15	6
Subs. *Australasian Medical Gazette*	107	5	0
Exchange	1	12	1
Printing	10	1	6
Gas account	1	1	0
Gratuity to porters	1	10	0
Clerical assistance and postage	9	15	6
Balance in bank	169	0	10
	£432	1	5

Audited and found correct.—A. E. Wigg.
W. T. Hayward, Hon. Treasurer.
January 20th, 1905.

Election of Council.—The following members were all declared elected:—Dr. E. W. Morris, vice-president; Dr. W. T. Hayward, hon. treasurer; Dr. J. B. Gunson, hon secretary; ordinary members of Council

(3), Drs. Bonnin, Dawes and Marten (the retiring president being a member *ex officio*).

Local editor of *Australasian Medical Gazette*, Dr. H. S. Newland (re-appointed); hon. auditor, Dr. A. E. Wigg (re-appointed).

Presidential Address.—Dr. C. W. Hamilton delivered his Presidential address.

The incoming president (Dr. A. A. Lendon) then took the chair.

Votes of thanks to retiring officers and to the Council of the University were then carried.

The annual medical dinner was well attended in the evening at the York Hotel.

The Branch Council reported that at its last meeting the following candidates were elected to membership of the British Medical Association and of its South Australian Branch :—E. V. Fooks, M.R.C.S., Gawler; S. Blackney, M.B., Port Adelaide; G. Gocher, M.D., Bordertown; A. Meikle, M.B., Yankalilla; C. C. Magee. M.R.C.S., Penola; O. Leitch, M.B., Port Pirie; A. W. Hart, L.R.C.P.G., Minlaton; T. B. Ashton, M.B., Unley Park, Adelaide; C. C. McDonald, L.R.C.P.G., Mount Gambier; T. Gibson, M.B., Quorn; Helen Mayo, M.B., Franklin-street, Adelaide; Phœbe Chapple, M.B., Adelaide Hospital; Susannah O'Reilly, M.B., Adelaide Hospital; Constance Cooper, M.B., Adelaide Hospital; P. Bollen, M.D., Semaphore; R. Burnard, M.B., Children's Hospital, Adelaide; L. Hayward, M.B., Yorketown; Thos. W. Brown, M.B., Hummock's Hill, via Port Pirie; R. Magarey, M.B., North Adelaide; A. F. Lynch, M.B., Wakefield-street, Adelaide; F. J. Jude, M.B., Broken Hill; A. V. Benson, M.R.C.S., Alberton; J. M. Maclean, L.R.C.P., Port Germein.

Victoria.

The ordinary monthly meeting was held on June 21st at the residence of Dr. T. G. Beckett, the president (Dr. H. W. Bryant) in the chair.

An apology for absecnce was received from Dr. W. R. Fox.

Correspondence was read from the secretary of the New South Wales Branch, enclosing a letter from Mr. G. A. Syme relative to the resolutions submitted to Council of 1900. He announced that they considered the second resolution satisfactory, but were unable to accept the first in its amended form.

The letter was received, and on the motion of Dr. Weigall, seconded by Dr. Joske, a motion was passed expressing regret at the failure of the negotiations, and expressing the thanks of the members to Drs. Crago and Rennie and the members of the Council of the New South Wales Branch for their endeavours.

Dr. T. G. Beckett read a paper on "The Use of Liquid Air in Surgery and Skin Diseases." (See page 313.) The paper was amplified by numerous experiments illustrating the properties of liquid air. Dr. Beckett also showed cases of epithelioma of the hip, rodent ulcer (two cases), and lupus erythematosus which had been under treatment by liquid air.

The meeting closed with a vote of thanks to Dr. Beckett.

Queensland.

A general meeting of the Queensland Branch was held at the School of Arts Hall on Friday, July 7th, 1905. There was an attendance of twenty, with the President, Dr. W. N. Robertson, in the chair.

Specimens shown were numerous and various.

Dr. Tyrie showed—Parasites found in the blood of a rat; hydatid of liver; lung from case of pneumonic plague; heads of two snakes showing the typically different arrangements of the scales in venomous and non-venomous snakes.

Dr. Orr showed—Sections (microscopic) of a glaucomatous eye.

Dr. Flynn showed—A glaucomatous eye; hypertrophy of supra-vaginal portion of cervix from multipara.

Dr. McDonald showed—Illustrations of a case of filarial elephantiasis of the scalp, which very closely resembled the case shown by Dr. Salter at the June meeting

Dr. Gibson showed—Papilloma of larynx which, by blocking a tracheotomy tube and preventing inspiration, caused sudden death of a two-year-old child.

Dr. Wield showed—Diphtheritic membrane casts of the nasal passages of a child of 20 months.

Dr Gibson showed a case in which Ballance's operation had been performed 18 months ago, and demonstrated the quality of the resultant hearing.

Dr. Turner showed and demonstrated the use of Professor Martin's apparatus for the estimation of blood pressure.

One new proposal for membership was made.

Dr. Turner's paper, "Some Practical Observations on the Diseases of Infancy," and Dr. Hirschfeld's paper, "Preliminary Communication on the Treatment of Arteriosclerosis" (see page 319) were read, but owing to the lateness of the hour, discussion was postponed.

REPORTS OF OTHER SOCIETIES.

Medical Society of Victoria.

The ordinary meeting was held in the hall on July 5th; the president, Dr. A. Jeffries Wood, in the chair.

On the motion of Dr. G. T. Howard, seconded by Dr. W. Kent Hughes, the standing orders were suspended to permit of a discussion of the action of the District Coroner on the previous day in cautioning Dr. W. W. Hearne at the inquest on the death of a patient at the Alfred Hospital while under an anæsthetic.

Dr. R. Hamilton Russell moved the following resolution :—"The members present at this meeting desire to express their surprise at the action of the District Coroner (Dr. Cole) at the recent inquiry into the death of Charles Carter, who died during the performance of an operation at the Alfred Hospital on June 28th. The action referred to consisted in the 'cautioning' of the chloroformist, Dr. Hearne, and in the general attitude displayed by the Coroner towards him. The members are of opinion that the indignation and resentment evinced by Dr. Hearne were warranted, and they desire the president of this Society to take immediate action with the object of making known to the Solicitor-General the sentiments held by the members in respect to this matter, with the request that the Solicitor-General will adopt such measures as he may deem requisite for the future protection of medical men from any repetition of such treatment." He expressed the opinion that it was intolerable that the reputation of an experienced and able anæsthetist could be jeopardised by such an action as that of the District Coroner. His action could only be justified in a case where definite evidence of negligence or want of due skill was forthcoming. Such was entirely absent in this case.

The motion was seconded by Dr. Jamieson, and carried unanimously.

Dr. W. A. Wood showed a case after a plastic operation on the nose. He had brought down a flap from the forehead and later had injected paraffin to restore the bridge of the nose, which had been absent. The cause of the condition had been congenital syphilis.

Dr. W. **Kent Hughes** showed a case of congenital fracture of the fibula. When first seen the boy had walked on the internal malleolus and was quite lame. He had removed the astragalus, resected the os calcis and tibia, and pegged them together. The boy was now able to walk with comfort on the sole of the foot. Dr. Hughes showed skiagraphs and photographs illustrating the condition before operation.

Dr. R. R. **Stawell** opened a discussion with a paper on "Clinical Observations of Blood-pressure, with Notes on Treatment." He said that up to two years ago he had been using Hill and Barnard's sphygmomanometer and Oliver's hæmodynamometer, and had believed that the main use in ascertaining the blood-pressure was in the early recognition of a persisting high tension in connection with early kidney cirrhosis. Now, however, since using Martin's modification of Riva Rocci's instrument he had recognised how much wider its scope of usefulness was. One of the first cases to open his eyes was one seen as out-patient at the Melbourne Hospital. This was a man with marked heart failure, with œdema and ascites. The pulse, he explained to his students, seemed resistant to the fingers, due to the condition of the arterial walls. However, he was surprised to find that the B.P. registered 240 m.m. of mercury. Von Basch, some years ago, had drawn attention to the possibility of high tension in heart failure. Following usual methods, the patient was given digitalis and pot. iod. The B.P. only fell to 230 without relief. He was then put on erythrol tetranitrate ¼ gr. B.P. at the end of three days was 220, and 205 at the end of a week, and the œdema had disappeared. The erythrol tetranitrate was increased to ½ gr., and digitalis and pot. iod. also given. B.P. fell to 180 and still later to 160, but the patient was now obviously not so well. Now he would have been content to leave well alone at the stage where the œdema had disappeared. Another case was that of a younger man with heart failure and a B.P. of 170 m.m. He was treated similarly with vaso-dilators. B.P. fell to 145, and he went out extremely well. In these cases the earlier the condition is recognised the better. One must then proceed slowly and cautiously. The optimum level varied considerably in different cases. Case with B.P. 190-200 m.m., pot. iod. and good advice produced no appreciable result. Then gave erythrol tetranitrate, and B.P. rose above 200. The inference from this and similar cases is that there is produced at times a condition of the peripheral vessels which prevent them from responding to vaso-dilators. Cases without heart failure but dyspnœa on exertion, distress and precordial pain:—Man, *æt.* 60, with gout, urine albuminous with low specific gravity, aortic disease with "see-saw" bruit. Neither digitalis nor erythrol tetranitrate were given, but on pot. iod. and colchicum the B.P. fell from 250 to 220, when he was comfortable. It then rose to 240 without obvious reason, and he went to break stones with a B.P. of 230. Another similar case with gout and a B.P. of 220 responded to pot. iod., the B.P. falling to 200. It was not necessary to lower further. In cases of arterio-sclerosis, also, he gave pot. iod. In a case of a woman with mitral stenosis and a B.P. of 235 and no albuminuria, under pot. iod. and trinitrine occasionally for the throbbing headache, the B.P. fell to 215 and she was comfortable. Arterio-sclerotic cases with B.P. of 200 or so, malaise and headache, and no albuminuria, responded well to pot. iod. or to syr. acidi. hydriodici. in milder cases. As a rule it was not wise to lower the B.P. more than about 20 m.m. In arterio-sclerosis there seems to be a spasm of the arterioles caused by toxins, which seem to be eliminated by the pot. iod. In cases of primary valvulitis in youngish men and women, with some heart failure but no arterio-sclerosis or cirrhosis of the kidneys, the B.P. is always higher in the worst stage. It falls when the balance of the circulation is restored, even where digitalis, strychnine, etc., were given. Why is there this rise of B.P., with incomplete emptying of the ventricles, seemingly comparable to the distressing rise of B.P. often seen in children with broncho-pneumonia? May it not be due to an accumulation of toxins in both cases with stimulation of the vaso-motor system? In primary myocardial failure, the clinical picture is different. The pulse is either frequent or slow, weak, intermittent, irregular. There is no œdema. He quoted the case of a man, aged 60, with a B.P. of 100. With digitalis the B.P. rose to 140, and he was extremely distressed. He was better with a B.P. under 100. In another case with low B.P.—that of a woman who had had albuminuria and puerperal eclampsia—there was marked œdema with a B.P. of 78-80. Under treatment the B.P. rose to 140 with disappearance of the œdema. The treatment of medical collapse was often difficult. Was the asthenia seen in typhoid fever, pneumonia, diphtheria, etc., due to loss of vaso-motor control of the peripheral and splanchnic areas from exhaustion of the centre, or was it due to myocardial failure? In typhoid fever the incidence was mainly on the myocardium. In these cases the B.P. must not be raised too quickly, giving the myocardium too much to do. We must act upon the central nervous system. In one case of typhoid, obviously dying, adrenalin was tried; 20 mins. of 1 in 1000 adrenalin solution were injected hypodermically. In ten minutes the B.P. rose from 100 to 130, but in 30 minutes had fallen to 90. Twenty mins. were again injected; the B.P. rose to 115, but soon fell again to 70. Any measures, such as saline injections or adrenalin, which mechanically raised the B.P. were dangerous, with myocardial weakness. In these cases strychnine was the least harmful treatment. In pneumonia the incidence was on the central nervous system, and the myocardium remained fairly strong. In that case abdominal compression might be of use, except for the danger of impeding respiration. In diphtheria was the incidence on the central nervous system or on the myocardium, or on both? It was certainly on the latter. The question of the action of strychnine was one which even yet required elucidation. Its use must not be given up without further investigation.

The paper was profusely illustrated with diagrams, illustrating normal ranges of blood-pressure at various ages, with the extremes met with, blood-pressure charts and sphygmographic tracings.

On the motion of Dr. **Jamieson**, seconded by Mr. F. D. **Bird**, the discussion was adjourned until the next ordinary meeting of the Society.

The Committee of the Adelaide Children's Hospital have arranged to hold the next street collection on the Thursday of Show week (September 24th). The committee of five ladies which undertook the general management last year was reappointed. Improvements at the Queen Victoria Convalescent Home, Mount Lofty, will involve an outlay of over £300, and reflooring the portion of the hospital which has been invaded by white ants will cost nearly £150. The treasurer states that the amount of £450 cannot be provided for out of ordinary revenue.

REVIEW OF CURRENT MEDICAL LITERATURE.

GYNÆCOLOGY.

The Placenta in Syphilis.

Nelis (Charles) (*L'Obstetrique*, September, 1904). In this paper the author enters into details on the histological changes observed by himself in the placentæ of women who were themselves markedly syphilitic or who were delivered of undoubtedly syphilitic children. The microscopic appearances of the various parts are described, and are illustrated in ten plates. The work, he states, grew out of a *désillusion*, when he had failed to find the lesions described as characteristic. It is not surprising, accordingly, to find that Dr. Nelis comes to the conclusion that there is no specific pathological lesion in a syphilitic placenta, for the placenta in a case of syphilis shows no lesions that are not equally found in women who are not syphilitic. Accordingly the placenta gives no evidence by which one may state, from the point of view of the pathologist, that a given woman was syphilitic. There is one feature, however, which is rarely observed except in syphilis, and that is the hypertrophy of the villi due to sclerosis of their stroma; and this feature is the one most constantly observed in syphilis, and affords a probability, but by no means a certainty, of the presence of syphilis. In general terms it may be stated that there is no relation between the lesions of the placenta and the viability of the child; œdema of the villi is considered a *post-mortem* change. The author agrees with Schwab in denying the statement of Fraenkel that the lesions in the placenta vary in position according as the syphilis is due to the mother or to the father. Syphilitic lesions of the placenta are the evidences of the struggle between mother and child. The hypertrophy of the villi is evidence that the child has required more air than it was getting, just as the fibrous developments in the maternal parts are evidence of the mother trying to block off the diseased part of the fœtal placenta. There are no lesions to be found in the placenta specifically caused by syphilis alone.

Indications and Results of Secondary Operations.

Baisch (*Monats. für Geburts und Gynäkol.*, Bd. xx, Ht. 4). Secondary operations for complications after laparotomy are not of common occurrence, and so the results of a large number of cases are of great interest. Out of 1100 laparotomies and 850 vaginal operations, 46 secondary operations were performed. Of these, 17 were undertaken for circumscribed pelvic peritonitis with 16 recoveries; 12 for general peritonitis, all of which died; 13 for mechanical paralytic distension of the bowels, of which 10 recovered; and 4 for paralytic distension after vaginal operations. Posterior colpotomy is the best operation for circumscribed pelvic collections, and the results are very good; but it is quite otherwise when there is general septic peritonitis with paralysis of the bowels. Here the diagnosis from mechanical ileus is all important. In the septic ileus the prognosis appears to be almost hopeless, but in the mechanical form 10 out of 13 cases recovered. The condition of the pulse and the time of onset of the symptoms are the best guides to diagnosis. Septic ileus comes on within the first four days after operation, while mechanical ileus does not show itself before the end of the first or beginning of the second week. In 85 per cent. of the cases of mechanical ileus there were adhesions found at the primary operation. A very important point in the treatment of all these conditions is the emptying of the bowel best secured at the secondary operation by means of a middle-sized trocar, so as to avoid peritoneal or wound infection.

The Etiology, Prophylaxis, and Treatment of Ruptures of the Uterus during Childbirth.

Ivanoff, N. (*Annales de Gynécol. et d'Obstét.*, August, September and October, 1904). A lengthy and carefully considered article on this subject is based on 124 cases collected by the author between 1877 and 1901, 80 of which occurred at the Moscow Maternity. Its frequency appears to be about 1 in 1482 cases, although Koblanck (University of Berlin) puts it at 1 in 462 complaints. With regard to the etiology of rupture, Ivanoff classifies the cases into six groups:—(*a*) In connection with placenta prævia; (*b*) in connection with transverse presentations; (*c*) with hydrocephalus; (*d*) contracted and deformed pelves, including exostoses; (*e*) vertex presentations complicated with the use of forceps, version, or other operative methods; (*f*) with pathological modifications of the uterine walls. Each of these headings is considered in detail, and the author's conclusions are of great value, especially as the cases are reported in detail and most careful *post-mortem* records given. The microscopical examinations of portions of the uterine wall at the seat of rupture in several cases are of the greatest interest. With regard to prophylaxis, the author, commenting on the frequency of rupture with transverse presentation, suggests that version is often the direct cause, and that in many cases embryotomy is preferable. He further insists on the importance of the *early* recognition of hydrocephalus before the uterus becomes dangerously thinned. The author's views on treatment are noteworthy, seeing that he is strongly in favour of operative rather than expectant treatment.

In the 124 cases reported the mortality was 81·75 per cent. All these cases were treated by gauze plugging and an abdominal bandage. In 58 cases of complete rupture only seven cases recovered, *i.e.*, a mortality of 87·75 per cent. In 43 cases of incomplete rupture, 16 recovered, *i.e.*, a mortality of 61·18 per cent. The cause of death in nearly all cases was hæmorrhage or septic infection, these occurring in about equal proportions. In death from hæmorrhage the fatal event was usually delayed some hours or even days. With regard to septicæmia, the danger lies in the clots or extravasations of blood into or beneath the peritoneum, which become sooner or later infected, and the patients die of peritonitis. In consideration of these points the author believes that the fatal issue can only be prevented by operation—*i.e.*, the bleeding vessels at the seat of rupture should be ligatured, all blood and clot removed from the peritoneal cavity, and the region of the tear carefully cleansed. This is, of course, the opposite view to that held by many obstetricians of the present day; but taking the most recent statistics—Koblanck, Klein, Schrœder and Ivanoff—on cases treated by abdominal section and suture of the rupture, the percentage of recovery becomes 60 per cent. as compared to 27 per cent. in cases treated by the expectant method. The author summarises his valuable paper with the following conclusions:—1. The greater number of cases of rupture of the uterus in placenta prævia are produced by violence. 2. In transverse presentations operative measures are generally the cause of rupture. 3. In transverse presentations previous attempts at delivery predispose to rupture, which may easly occur if version is attempted. 4. The crochet of Braun is a dangerous instrument. 5. Most uterine ruptures produced by violence occur laterally, and tend to involve the cellular tissue and broad ligaments. 6. Ruptures in cases of hydrocephalus either from distension or thinning of the uterine wall are often due to the condition being found out too late. 7. In cases of contracted pelvis the rupture occurs generally in the distended lower segment from pressure upon the pelvic walls, the promontory or long growths projecting into the pelvic cavity. 8. A contracted pelvis predisposes to rupture, since the uterine walls may have been seriously damaged by previous labours. 9. Spontaneous ruptures in the case of flattened pelvis are nearly always transverse and in the region of the supra-vaginal portion of the cervix, and may occur early in labour. 10. Cases of "colporrhexis" are really cases of transverse rupture of the supra-vaginal portion of the cervix uteri. 11. In cases of contracted pelvis, if there have been previous difficult labours or serious operations for delivery the expectant treatment is dangerous, especially if cicatrices already exist in the supra-vaginal portion. 12. One of the predisposing factors of rupture, besides the conditions already mentioned, is inflammatory cellular infiltration. 13. All the so-called pathological modifications of the elastic tissue of the uterus, as described by some authors, are really physiological modifications depending on pregnancy, labour, or the puerperal state. Ivanoff has never found true pathological changes in the elastic tissue in the ruptured uteri he has examined. 14. The expectant or conservative treatment of ruptures of the uterus during labour gives results *less* favourable by one half than operative interference. 15. The treatment of every rupture of the uterus during labour should be by operation, for by this means alone can the bleeding, immediate or later, be arrested and the region of the wound and peritoneal cavity thoroughly cleansed.

Clinical Report of the Rotunda Lying-in Hospital for the Year ending November 1st, 1903.

Purefoy, R. D. (*Transactions of the Royal Academy of Medicine in Ireland*, vol. xxii). The reports of the Rotunda Hospital furnish a great deal of information of the highest value, and it is much to be regretted that all similar institutions do not follow the excellent example of the Rotunda. The following points may be gleaned from Dr. Purefoy's last report:—In the extern department 2282 cases were attended, and of these 5 women died, a maternal mortality of 0·22 per cent.; in the intern department there were 1694 cases with 9 deaths, a maternal mortality of 0·53 per cent. The fœtal mortality (children born dead) reached a very high figure in both departments. In the extern department it was 104 out of 2070 births, *i.e.*, 5 per cent.; in the intern department it was 78 out of 1715 births, *i.e.*, 4·50 per cent. In the intern department also 33 children born in the hospital died, an infantile mortality of 1·9 per cent. The maternal mortality of labour is a subject of great importance, and we turn with interest to the account given by Dr. Purefoy of his fatal cases. Of the 5 extern cases which died, 2 were directly due to hæmorrhage, one was a case of post-partum hæmorrhage which was treated by administration of oz. ii of ergot, massage of the uterus, curetting, and douching with hot creolin solution. While the patient was being douched she suddenly collapsed and died in ten minutes. The other was a case of concealed accidental hæmorrhage, treated in the Dublin method by plugging the vagina and tightly binding the abdomen. The patient collapsed under the anæsthetic used for the plugging, and died before transfusion could be carried out. In two others severe post-partum hæmorrhage was a prominent feature of the case, and the treatment in each was to curette and douche the uterus. The patients died of sepsis on the 5th and 13th day respectively. The fifth case was probably one of rupture of the uterus caused by difficulty in delivering a displaced arm in a breech presentation; but no diagnosis is stated, and a *post-mortem* was not made. The causes of death in the intern cases are not set forth in detail, but we notice that among them was another case of post-partum hæmorrhage, treated in the same way with the curette, douching, and administration of ergot. A recurrence of bleeding occurred 20 minutes after the first attack, and hypodermic injections of strychnine and ether and saline transfusion were practised, but the patient died 2½ hours after delivery. We notice also that in the intern department there were 28 cases of post-partum hæmorrhage, and Dr. Purefoy records that 9 of them were severe; in other words, post-partum hæmorrhage occurred in 1·65 per cent. of all intern cases. It will be observed that the routine treatment of this form of hæmorrhage appears to be to curette and douche the uterus. In neither of the two fatal cases is it recorded that bimanual compression of the uterus was practised, nor was the uterus packed with iodoform gauze. Certainly the results set forth are not likely to commend the use of the curette as a substitute for such well-tried methods as compression and packing. Nor can we conceive of any sound theoretical reason for curetting under these circumstances. If anything is retained in the uterus the fingers suffice for its removal, and fragments of membrane too small to be detected by the fingers, but which might conceivably be removed by the curette, cannot be of the slightest importance as a factor in the causation of hæmorrhage. Indeed, on theoretical grounds the use of the curette appears to be directly harmful, for it must be supposed, if used efficiently, to displace the thrombi in the mouths of the uterine sinuses, and thus actually start fresh bleeding. In the intern department nine cases of contracted pelvis occurred; in eight of these labour was induced, the child being born alive in seven. It is not recorded, however, how many of these children born alive ultimately survived. This point is an important one in estimating the value of induction of labour, for the infantile mortality is high in premature children. The method of induction favoured by Dr. Purefoy is the intra-uterine bougie, supplemented by 5-grain doses of quinine, and in some cases the application of the interrupted current, of the value of which a high opinion is expressed. There were ten cases of prolapse of the funis, and in half of these the child was born dead; four cases were treated by version, three by forceps, and two by expression; replacement appears to have been tried without success in two cases. In 17 cases the presence of uterine fibroids was noted. In 14 cases the child was born alive, and the mothers all recovered, including one treated by hysterectomy. Forceps were required in five cases, and post-partum hæmorrhage occurred in three cases. These favourable results will not surprise obstetricians whose experience of the association of fibroids with pregnancy is sufficiently large. The wild statements sometimes made by surgeons who have no obstetric-experience as to the peril caused by fibroids to women in labour are apt to produce false impressions of their true importance in the minds of any who may give heed to them. In 60 intern cases forceps were applied, the indication in 48 being delay in the second stage. In 45 of the total number the patient was a primipara, and as there were 576 primiparæ delivered, forceps were required in 7·8 per cent. of the cases. It would be of great benefit to parturient women in private practice if 92·3 per cent. of all primiparæ were allowed to continue without labour being hurried to completion by the application of forceps. There appears to be no adequate reason why forceps operations should be so much more frequent in private than in hospital practice. Manual removal of the placenta was found to be necessary in 24 cases, and six of these suffered subsequently from elevation of temperature, while one died in 48 hours of acute sepsis—a striking comment upon the risks attending this operation even in skilled hands. Morbidity, *i.e.*, elevation of temperature, was present in 146 out of 1694 cases, or in 8·9 per cent. In many of these, of course, only a single rise occurred; and the causes noted in addition to sepsis are pneumonia, bronchitis, influenza, phthisis, and mastitis. The latter should surely be regarded as a manifestation of sepsis, though not of the genital tract.

OPHTHALMOLOGY.

Trachoma in London.

It is reported that so great is the rush of Russian Jews arriving in London suffering from trachoma that the hospitals are turning them away. A large number of these persons are *en route* to America, while others have been rejected by the United States immigrant inspectors, and having been returned by the steamship companies are stranded in the United Kingdom instead of being sent back to Russia. (*Journal of the American Medical Association.*)

Purulent Meningitis following Enucleation.

The *Ophthalmoscope* for May prints a report published in the *Archives für Augenheilkunde* of September, 1904, by Enselin and Kuwahara. The patient, a woman aged 64, had met with an accident to the cornea, followed by an ulcer. The ulcer perforated and the result was a partial staphyloma. Later, the eye (which was blind) became painful and subject to relapsing inflammation. The eye was enucleated, but during the operation difficulty was experienced owing to adhesions, and the globe was cut, with escape of purulent contents. Fifty-eight hours after the operation the woman died, and the autopsy revealed purulent infiltration of the meninges, bronchitis, broncho-pneumonia and fatty liver. Pus was not found in the orbit, petrous bone, nor frontal sinus. The iris, ciliary body, and choroid showed evidence of violent inflammation. The vitreous was replaced by nearly pure pus. The shrunken optic nerve was the seat of chronic inflammation. The orbital portion of the nerve showed leucocytic infiltration, thickening of the connective tissue, new formation of vessels, and atrophy of the nervous bundles. The intersheath space was markedly distended with closely-packed pus cells. Here and there the dural sheath presented a small cell infiltration. The orbital fat also was infiltrated with wandering cells. Histological examination of a morsel of the hemisphere showed evidence of an acute purulent leptomeningitis associated with slight œdema. During life a pure culture of streptococci was obtained from the orbit. After death impure cultures of the same micro-organism were obtained from the vitreous, the pial sheath and the membranes of the brain.

This case goes to prove that an infection may be present, even although the orbital tissues to the naked eye show no evidence of inflammation. It is over 40 years since von Graefe pointed out the danger of meningitis following enucleation of suppuratory eyeballs, and reported two fatal cases; and though more recently some surgeons have ventured to question this danger, the above and other recent cases have proved the soundness of von Graefe's view. Altogether upwards of 40 cases of fatal meningitis have been recorded as following enucleation of a suppurating eyeball.

Another Case of Amaurosis from Paraffin Injection into the Nose.

By Dr. Mintz, Moscow; reviewed by Harold Gifford in the *Ophthalmic Record*, April, 1905. The patient was a man aged 25, whose syphilitic saddle nose Mintz had re-formed in 1903 by the injection of a gramme of paraffin. A year later, as a dent had formed in the old paraffin, the patient returned "for further beautification," and Mintz injected ⅓ gramme of paraffin, melting point 43°, one half of it on each side of the nose ridge, about 1½ c.m. from the tip. Three minutes later the left eye became painful and quite blind; pulse 48; vomiting. The ophthalmoscope showed nothing abnormal in fundus, but a paresis of some of the oculomotor muscles. Next day there was œdema of the lids, exophthalmos, globe nearly immovable, fundus not visible. During the next few days there followed two thrombosed areas on the bridge of the nose, corneal opacity, iritis. Three weeks after the operation the fundus was visible. Finally, about ten weeks after the operation, atrophy of optic nerve, V=0.

Mintz explains the events as follows:—First a thrombosis of the external nasal veins which spread by continuity to the territory of the inferior ophthalmic vein. As the thrombosis spread toward the optic foramen, thrombosis of the central retinal vein, the main trunk of the ophthalmic and the cavernous plexus occurred. In the interest of paraffin cosmetics Mintz regrets that he was guilty of no technical mistake in making the injection. In the two other cases of Hurd and Holden and of Leiser the diagnosis of embolism of the central artery was made in the Hurd-Holden case. Leiser refers in his first article to the probability of a thrombosis having occurred, but in his latest reference to the case he speaks of the accident as due to an embolism in the region of the eye. It seems quite certain, however, that it was thrombosis and not embolism.

New Conquests of Ocular Therapeutics.

In the March number of the *Ophthalmoscope*, Darier continues his article, and refers to Stovaïne, a new local anæsthetic produced by pure synthesis. It is the hydrochloride of dimethylamine, β benzol-pentarol. Davies' conclusions are:—1. Stovaïne is an agent much less violent than cocaine. It shows a lesser toxicity by one-half in animals, while its use in human surgery has demonstrated that in equal anæsthetic doses its toxicity is much less. 2. Although a poison as regards the nervous system, it is not a poison as regards the heart. It braces up and increases the force of the latter and seems to make the patient proof against syncope. Hence he can be operated on in a sitting posture, whereas prudence requires the patient to be recumbent when cocaine is administered. 3. As a local anæsthetic it is, dose for dose, less powerful than cocaine for practical purposes. It permits of more extensive intervention, requiring much heavier doses of the anæsthetic. 4. Administered as a rachidian injection, stovaine does not produce the troubles frequently observed with cocaine, such as pallor, giddiness, lypothæmia and giddiness. 5. Stovaine is an antiseptic and an antipyretic. It will not for the present supplant cocaine in conjunctival instillation, as the latter is less painful, and because applied in this way there is nothing to fear in regard to its toxicity. For subconjunctival or subcutaneous injections, however, stovaine is cleary superior owing to its lower degree of toxicity, and preference should be given to it.

NEUROLOGY.

Clinical Relations of Blindness with General Paralysis and with Tabes.

Leri (*Journal de Neurologie*, April, 1905), noticing the curious fact that blindness is said to be comparatively common in tabes and extremely rare in general paralysis, has examined the matter from a clinical point of view, and makes the following statements:—1. Blindness is rare in confirmed cases of general paralysis. 2. Blindness fairly often shows itself as an isolated symptom in persons who ultimately—perhaps many years afterwards—become general paralytics. 3. The victims of general paralysis frequently show retinal lesions. In regard to tabes he comes to the following conclusions:—1. Blindness occurs rarely when the disease is well established. 2. Various moderate affections of vision are not uncommon in this disease at all stages of its development. 3. Blindness frequently occurs long before any other symptom of the disease appears. Leri has observed also that many of the cases described as "tabes with blindness" exhibit mental symptoms very suggestive of general paralysis. He concludes, therefore, that so far as symptoms connected with vision go there is little to distinguish tabes from general paralysis.

The Neuroglia.

Held, of Leipzig, has recently published the results of a long study on the structure of the neuroglia, based chiefly on a new staining method of his own. A short account of the work appears in the *Neurologisches Centralblatt* for November, 1904. According to Paul Weigert, the neuroglia fibres were not connected with the protoplasm of the neuroglia cells, but were chemically and morphologically separate from them. Held's researches do not lend support to this view. It is indisputable that the neuroglia fibres differ widely chemically from the protoplasm of their mother-cells, but Held believes that the morphological separation, such as one sees in Weigert's preparations, is an artificial product. The protoplasmic constituent of the neuroglia is much more extensive than Weigert thought. A protoplasmic coat clothes by far the greatest part of the fibres running out from the glia cell, or, rather, these fibres are intracellular, that is, they lie inside long prolongations of the protoplasm of the cell body. Held divides neuroglia cells into various classes according to the arrangement of their processes. One very striking observation of Held's is that the processes of these neuroglia cells do not end free, but form with the processes of neighbouring cells a retiform, or, rather, a membranous structure. This net-like structure is formed by the union of the protoplasmic coats of the cell processes, so that we have really a protoplasmic syncytium with scattered nuclei and fibres indicated. Of great interest from a physiological and pathological standpoint is the relation of the neuroglia to the blood-vessels of the nervous system. By certain staining methods, especially the methyl-violet method of Ford Robertson, one can observe certain processes of neuroglia cells apparently attaching themselves by a foot-like expansion to the walls of the blood-vessels. Held's view, however, is that these expansions do not reach the blood-vessel wall. He considers that the protoplasmic neuroglial network forms a channel round each blood-vessel, leaving a distinct space between the elements of epiblastic and those of mesoblastic origin. This is undoubtedly a matter of importance from the standpoint of cerebral metabolism. Bielschowski, from whose review of Held's book this account is taken, expresses regret that the author has kept his new neuroglial staining method secret.

Inheritance of Acquired Characters.

Lomer (*Neurol. Centralbl.*, March, 1905) publishes some interesting facts in this connection. He argues with Hähnle, who states (*Neurol. Centralbl.*, No. 18, 1904) that "the experiences of neuro- and psychopathology permit—as does also the general position of the question of heredity—the inheritance of an individually-contracted diseased condition to appear possible." Lomer has come across the following interesting evidence in support:—A man (P.S.) fell in early life a distance of ten metres on to his forehead, receiving a wound at the edge of the hair. As the wound healed white hair grew on the spot. P.S. is at present 79 years of age and shows no mental change. He married a healthy wife soon after his fall. He had seven children, of whom two have been long dead. Of the five living the three eldest show interesting abnormalities. All three have a tuft of white hair on exactly the same place as the father; the second child is deaf and dumb; the eldest suffered from constant headaches, and has had nine children (partly illegitimate). Of these nine children no less than five (the five eldest) show abnormalities. Four are deaf and dumb, and one deaf. They have besides, the following characteristics:—Agnes, 18 years old, has a patch of white hair as above; she has also a white mark on her forehead and white marks on the extensor surfaces of the upper extremities. Wilhelmine, 15 years, has white hair on the same place, a white mark on the forehead, and some on the legs. Bertha, 13 years, deaf, has no white hair, but white marks on the legs. Peter, 10 years, has a white hair patch like the above. Emma, four years, has white hair, but less than the others. The writer considers that there can be no doubt the injury produced a trophic change at the site of the impact. This trophic change was one acquired by the individual, and since the majority of the descendants showed the same peculiarity, it must be admitted that an inheritance of acquired characters is possible. The history of the above cases is also of interest from the fact that through the injury an increasing degeneration of the stock was induced which will certainly end in its extinction.

Dr. J. V. McCreery, Inspector-General of the Insane, Victoria, and Dr. W L. Watkins, medical superintendent of Yarra Bend, having retired on their pensions, Dr. W. L. Mullen, senior medical officer at Kew, is acting as superintendent there, while at Yarra Bend Dr. A. J. W. Philpott is in charge.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

King Edward's Hospital Fund—Plague in India—Street Manners—Hospitals and Medical Schools—State Registration of Nurses.

THE annual meeting of the General Council of the King's Hospital Fund was held at Marlborough House on March 30th, under the chairmanship of H.R.H. the Prince of Wales. Lord Rothschild, the treasurer, presented the accounts for 1904, and stated that the total receipts had been £99,088, of which £80,000 had been distributed to hospitals, and £13,153 represented funds to be held as capital. At the end of the year they had investments valued at £664,256 and £16,547 at the bankers. The Prince of Wales, in moving the adoption of the report, discussed the financial position of the fund, and said he was convinced that their aim must be to provide from the fund an income which would admit of an annual distribution among the hospitals of at least £150,000 a year. His Royal Highness also referred to the questions of the amalgamation of special hospitals, hospital economies, and medical education. He was glad to learn that the fund was now within £30,000 of the capital sum necessary to enable them to rely upon an assured income from investments alone of £50,000 per annum. They still, however, had before them the goal set by the King, viz., an income from all sources which would enable them to make an annual distribution of £150,000. As to medical schools, he said: "I am glad to see that the committee recommend us not to open up past transactions, but to deal only with the future. Inasmuch as the report was not published until after the commencement of the present year the hospitals cannot act upon it in such a way as to clear the accounts of the present year of these charges. It is hoped, therefore, that we shall be considered to have acted reasonably if we begin with the first complete year after the publication of the report, that is, the year 1906. If this is approved the hospitals will have nine months in which to consider their positions. All that we will ask is that the whole of the grants from the King's Fund may go to the relief of the sick poor. It must be remembered that our fund collects many small sums from people who wish to do something for the sick poor, but who have no special interest in any one hospital, or in anything but the ordinarily accepted objects of the hospitals. While this subject of medical schools remained in doubt, while we were assured that for various reasons it was in the interests of the sick poor that the hospitals should assist in maintaining the schools, we were entitled to accept that view, and we did so; but now that we have in our hands the report of Sir Edward Fry's committee we are bound to act upon its recommendations, and to reconsider the policy which we have hitherto followed. I trust and believe that in the near future the result of our action will be of benefit not only to the hospitals themselves but to medical education as well. I am glad to know that the Senate of London University has already put forward a scheme for the establishment of an Institute of Medical Sciences in connection with the University of London. It is to be hoped that the public will generously support the appeal which has been made for the funds necessary to build and equip such an institute, and thus assist the University in its efforts to provide in London a medical education unrivalled throughout the Empire."

No fewer than 45,000 deaths occurred from plague in India during the week ending March 11th. This huge mortality has given rise to alarming statements in the lay press; but though the fact attracted little public attention at the time, the death-rate was greater last year than this: 46,320, 47,759, and 46,812 fell victims to the disease during the first three weeks respectively of April, 1904. For many years past the month of April has proved the period in which the disease has reached its maximum in India, so that it is not improbable that the highest figure for the current year has not yet been attained. The importance and seriousness of the continuance of such a formidable epidemic is a matter of very considerable importance, not to India alone but to the whole Empire. The *British Medical Journal* announces that a Commission is about to be appointed to enquire into the causes and prevention of plague, but points out that however commendable such an investigation undoubtedly is, it is eminently desirable that practical sanitary administrators should be appointed to whom executive powers are entrusted. The medical officers who have hitherto been selected for plague duty have been under the control of local lay committees, by whom they have not always been loyally supported in their efforts to deal with the scourge. There is little chance for hygienic measures to prove effective so long as they are subjected to official interference of this kind and are exposed to the risk of restrictions which render them valueless.

The recognised need of improvement in the manners of pedestrians in the London streets is the subject of a noteworthy annotation in a recent issue of the *Lancet*. It is pointed out that carelessness is responsible for many preventable accidents—wideawakeness and freedom from preoccupation, the two necessary factors for safe pedestrianism, being too frequently wholly unobserved. Many of those who perambulate the streets take no care to avoid coming into collision with those they meet or to guard against obstructing the way of those whom they precede. Cigarette ends are thrown carelessly anywhere, and there are persons who still spit, despite the public condemnation of such a filthy and obnoxious habit. Attention is also drawn to the danger which arises from the haphazard way in which sticks and umbrellas are carried; instead of being held by the handle with the point down, they are often so swung about or flourished as to be a source of positive alarm to passers by. "It is the custom to advertise," says this article, "lessons in deportment as one of the elements of the scholastic curriculum, but the management of the stick and the umbrella appears to be neglected in this educational course; and what might be made an ornamental addendum to the sartorial outfit becomes a dangerous nuisance, as witnessed in the swaggering switch in the hands of the new recruit or the careless twirl of the dandy's cane. We do not think 'the twirl of the dandy's cane' is an expression founded upon observation, for the man of to-day does not happen to flourish his stick, but undoubtedly persons who carry their sticks and umbrellas under their arms, horizontally pointed, or who thrust them upwards in the desire to hail a vehicle, are a public nuisance. Education in deportment, however, should not be limited to teaching 'the nice adjustment of a clouded cane,' and all parents should instruct their children to be thoughtful in the streets—thoughtful of what is going on around them, and also of the comforts of the public." To this it might well be added that much of the present danger and inconvenience would be avoided if, in addition to a more careful deportmental education, "the rule of the road" were as strenuously forced on the pavement as it is on the highway.

A circular letter has been addressed by King Edward's Hospital Fund for London to the secretaries of the 12 London hospitals with medical schools, calling attention to the following resolution, which was passed by the executive committee of the fund and approved: "That the executive committee, having considered the recommendation of Sir Edward Fry's committee (par. 27), advises the general council to notify to the hospitals that no grants will be made from the King's Fund as from and after January 1st, 1906, to any hospitals which make payment to, or on account of, their medical schools out of general funds subscribed for the relief of the sick poor." The executive committee points out that where the hospital and school form a single institution, or where subscribers have been in the habit of subscribing to the hospital funds knowing that grants are made from these funds to the school, it will be necessary in future to keep separate accounts for the school in respect of both receipts and expenditure.

The Committee of the House of Commons—of which Mr. Tennant is chairman—on the State registration of nurses is at present collecting evidence on the subject of its reference. There is probably a preponderance of those who are most intimately acquainted with nurses and their requirements who altogether disapprove of a registration system, and to such the evidence of Miss Lückes, matron of the London Hospital, which was taken by the committee on April 13th, will be read with interest and approval. Miss Lückes is one of the leading hospital matrons in London, and, from long and varied experience, is able to speak with an authority which few others can possess. In the course of her examination before the committee Miss Lückes said she was opposed to the examination and registration of nurses by the State because she believed that it would result in the registration as efficient of many nurses who were unsuitable for the work and in the elimination of some who, having had a little training, were capable of doing very useful work. She saw no reason why there should be an examination by the State, which though nominally aiming at uniformity of qualification, would not really obtain it. She objected to examination, not as a test of groundwork, but as the basis of certificate. It was much better to let each hospital have its own certificate. No doubt there were a good many uncertificated and inefficient nurses in employment, but she believed that the number had been greatly exaggerated. Judging from her individual experience, she would say that the number of qualified nurses available had been over-estimated. In her opinion, if a three years' training were necessary in order to obtain a certificate, the supply would be still further restricted, and she did not think that by making the examination stiffer the inefficient nurses would be eliminated. Nurses did not require to be amateur doctors. The pseudo-scientific young person was most undesirable in a sick-room. She saw no objection to persons who were uncertificated acting as nurses provided that they were honest about it and that they were fitted for the class of work which they undertook to perform. Doctors had a perfect right to employ as a nurse anyone as to whose competence they were satisfied; and if proper inquiries were made to ensure that the right persons were sent to the right cases, the public needed no further protection against incompetency on the part of these nurses. The only nurses against whom protection was necessary were nurses sent out by private institutions, which she thought ought to be registered and give a guarantee that every nurse employed by them held a certificate from a recognised hospital.

Tasmania.

(FROM OUR OWN CORRESPONDENT.)

Dr. Wilson v. Dr. Elkington—Dr. L. G. Thompson appointed Health Officer—The Return of Dr. McCall—Death of Dr. R. W. Murphy—Proposed New Operating Theatre for the Launceston Hospital—Medical Officers of Health of Hobart and Launceston and Insanitary Houses.

THE case of Wilson v. Elkington, in which Dr. J. T. Wilson, late Medical Officer of Health for the city of Launceston, sued Dr. J. Elkington, Chief Health Officer of Tasmania, for wrongful dismissal, came before the Supreme Court in April. After some argument of counsel, the plaintiff was allowed to amend his plea to that of malicious dismissal, and the case went to the jury, which returned a verdict in favour of Dr. Elkington, the Judge summing up strongly in his favour and complimenting that gentleman for the fearless way in which he had done his duty. For the post which was so vacated the local authority called applications by advertisement. In the meantime Dr. Wilson's lawyer forwarded a letter stating that his client was still legally medical officer of health, and in support of his claim forwarded copies of the opinion of a Victorian K.C. to that effect. The local authority thereupon, thinking apparently that the K.C.'s opinion overruled the verdict of the Supreme Court, wrote to the Premier for the opinion of the Crown Law Officers as to what course it should pursue. The reply was, as might have been expected, that the verdict of the Supreme Court must be accepted. Whether the plaintiff will appeal against this verdict is doubtful.

Of the numerous applicants for the vacant position, Dr. L. G. Thompson has been appointed. It is noticeable that although several had had considerable public health experience and possessed public health diplomas, the applicant chosen had no such qualifications. The longer this Launceston health embroglio has continued the more injudicious has been the course of action adopted by the City Council, while the conduct of the local authority, whether intended or not, has been such as to thwart the attempts at public health reform instituted by the Department of Health and to militate against the much-needed progress of public health administration in Launceston, a town which has in the past claimed the reputation of a model municipality.

Dr. J. McCall, M.H.A., late Chief Secretary of Tasmania in the Propsting Administration, has returned to Tasmania after a visit to the old country. In addition to devoting some time to professional studies in Glasgow, he paid particular attention both in England and South Africa to matters affecting the commercial, municipal, and State interests of Tasmania.

Dr. R. W. Murphy, an old and esteemed medical practitioner, resident in Launceston for many years, died on May 3rd after a lingering illness. His loss will be greatly felt by his many old friends and patients.

Proposals are being made by the Board of Management of the Launceston General Hospital to appeal to the public generosity for funds to build a new operating theatre. Not only is the medical profession opposed to such expense as unnecessary, the present operating theatre being sufficient for a hospital of its size, but, as the profession has repeatedly pointed out of late, the gross and scandalous abuse which is now going on at this public charitable institution, with the permission and encouragement of the board, is of such a nature as not only to demand Government interference, but to warrant the public being advised against subscribing money to a primarily charitable institution, the funds of which are being so maladministered, if not misappropriated, by its governing body. The Government, we are glad to see, has refused in any way to countenance the scheme.

The medical officers of health of Hobart and Launceston have been engaged in crusades—the former against insanitary houses, the latter against insanitary barbers. There seems little doubt that in Hobart, as well as in Launceston, there exist grave defects in the sanitation of many of the houses provided for the poorer classes. This does not apply only to houses of an olden type, but many of the cottages recently under construction violate some of the cardinal laws of hygiene. The jerry-builder is amongst us even in little Tasmania, and defies the scientific code of the Public Health Act.

> Crescent and street and square I build,
> Plaster and paint, and carve and gild:
> Around the city see them stand,
> These triumphs of thy shaking hand,
> With bulging walls and sinking floors,
> With shut, impracticable doors,
> Feeble and frail in every part,
> And rotten to their inmost heart.
> There shall the simple tenant find
> Death in the falling window-blind,
> Death in the pipe, death in the faucit,
> Death in the deadly water-closet.
> A day is set for all to die—
> *Caveat emptor!* What care I.

As to the barbers, they have not yet presented their reply to the censure passed on them; and belonging as they do to an ancient guild, closely related to our own profession from a historical standpoint, I deem it only fair to suspend judgment for the present.

GOVERNMENT MEDICAL FEES.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—I write to ask if there is any possible way of altering the present mode of paying Government medical officers their fees than by voucher, to be signed by the police magistrate. It is most unfair to make the medical man dependent (as at present) on the sweet will and tember of the P.M. as to signing his voucher or not. Be it understood that unless the voucher be so signed (no matter how just the claim) payment will be refused. Then, again, as to attendance at inquests, if the distance be long (as in many cases it is), the medical man has to depend on the coroner (who is the P.M.) to recommend any special terms. Surely some plan can be adopted that will enable medical men to get their fees without being at the mercy of the P.M. Cannot medical men be trusted to send their account direct to the chief medical officer and so be removed from all magisterial control? As far as I can understand, at present the chief medical officer depends absolutely on the advice of the magistrate—at any rate in country towns—a state of things most undesirable.—

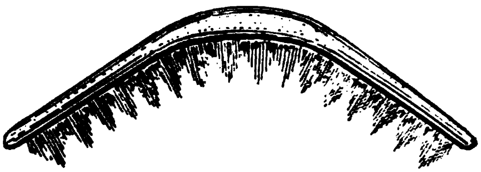
I am, etc., C. C. Cocks.

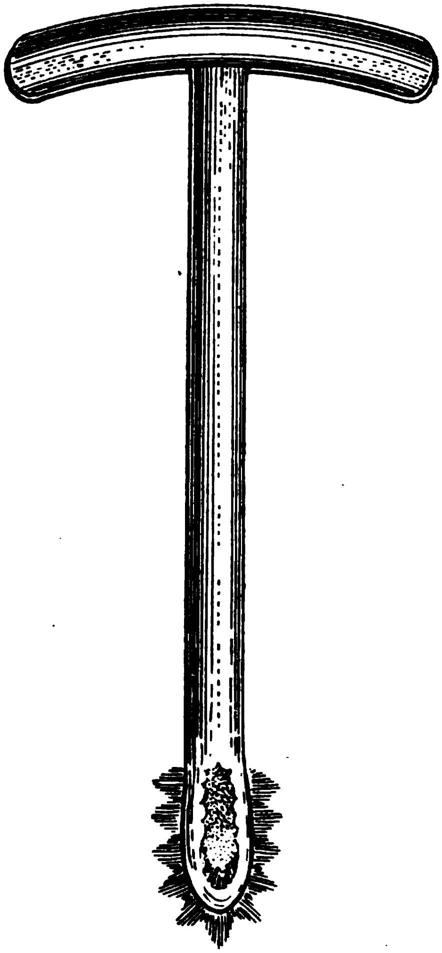
Wentworth, July 10th, 1905.

AN EFFICIENT TOOTHBRUSH.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—Dental caries is largely due to particles of soft farinaceous food lodging in the cavities of the teeth and especially in the interstices between the teeth.





Biscuits are among the worst offending substances; they form a soft tenacious paste, filling all dental and interdental cavities, and undergoing acid fermentation if not removed. The best preventive for dental caries would be an entire change in our dietary. Failing this, the removal of offending particles by careful brushing after each act of eating is the only reasonable course. Unfortunately the toothbrush in ordinary use is a clumsy and inefficient instrument. It is adapted for horizontal to-and-fro movements, which polish the projecting parts of the teeth, but leave their interstices uncleansed. To use it with the necessary up and down vertical movement is awkward and difficult, especially for children, in whom careful cleansing is most important. In the accompanying rough sketches of an improved model, the handle is placed at right angles like a rake, and the brush is slightly curved to adapt it to the arch of the teeth. The bristles are arranged in serrations, as in Wessler's model. Different sizes would be needed for children and adults. The best curve for the brush is a point which needs some practice to decide. It should not be part of a circle, but there is no need for it to accurately correspond to the dental arch, as there is considerable flexibility of the bristles.

The cleansing of the inner aspect of the teeth is accomplished to a large extent by the instinctive action of the tip of the tongue, ever searching the interdental cavities and removing *débris*. It may be assisted by the end of the handle being rounded and bearing two or more serrated rows of bristles crossing at the apex. This may be used either with vertical or rotatory movements. The bristles should be as stiff as is consistent with comfort; for those with tender gums they should be finer and more flexible. The idea is so simple that I daresay it has been anticipated, but I should like to see it in ordinary use. The merit of the new model is that it is easy to use in the right way, with up and down movements, and very difficult to use in the useless way now ordinarily practiced. I hope some enterprising manufacturer will take this matter up; there ought to be a small fortune in it.—I am, etc.,

A. Jefferis Turner,
M.D. (Lond.), D.P.H. (Camb.).

OBITUARY.

Alfred Edward James Russell, M.B., B.S. (Adel.), Unley, South Australia.

We regret to record the death of Dr. A. E. J. Russell, which took place at his residence at Burnside on June 14th last, in his 36th year. He was the son of Mr. J. T. Russell, of Unley, and graduated in medicine and surgery at the Adelaide University in 1893. Two years later he succeeded Dr. Perks in the position of resident medical superintendent at the Adelaide Hospital, and continued to hold that appointment during the period of chaos which ensued on the resignation of the whole of the medical and surgical staff of that institution. Owing to his loyalty to the other members of the profession he was dismissed from this post in 1898. Shortly afterwards he contracted typhoid fever, and although he recovered from that illness he was never the same man again. He succeeded to the practice of Dr. H. H. Wigg at Unley, and was appointed medical officer to the Unley Board of Health. Unfortunately, signs of pulmonary tuberculosis manifested themselves, and in 1904 he was obliged to resign the appointment of health officer after five years' service. He has left a widow (a sister of Dr. Angas Johnson) and a family. The retiring president of the South Australian Branch of the British Medical Association, Dr. C. W. Hamilton, in the course of his retiring address, referred to the loss which the Branch had sustained in the death of Dr. A. E. J. Russell, "who was cut down in the prime of life, with no doubt a successful career before him. Held in the highest esteem by all who came in contact with him, his early death is deeply to be regretted." His funeral was largely attended by a representative gathering of the medical profession and the general public.

UNIVERSITY INTELLIGENCE.

University of Melbourne.—The Organisation Committee of the Faculty of Medicine have drawn up a new medical curriculum, which, however, has not as yet been finally adopted. This provides for a five years' course as formerly, consisting of four divisions and examinations instead of five. Each year is to be divided into four terms aggregating thirty-two weeks in place of three terms aggregating twenty-eight weeks as at present. The first division and its examination should be completed at the end of the first year; the second division and its examination at the end of the second term of the third year; the third division and its examination at the end of the second term of the fourth year; and the fourth division and its examination at the end of the fifth year. Hospital work is not to commence until the third term of the third year instead of at the beginning of the second year; and all lectures are to cease at the end of the second term of the fifth year, so that students will have the second half of the fifth year free to devote themselves entirely to hospital work and the attendance at special department before their qualifying examination. Copies of the proposed new curriculum have been sent to the medical staffs of the various hospitals for their consideration. The committee hopes to get the scheme approved and passed by the Council and Senate of the University in time to come in force on the first of January, 1906. The organising committee have also drawn up a scheme for a proposed course for a Diploma of Public Health. This may also come into force at the beginning of next year.

Howard Kelly on "The Vermiform Appendix," with 429 illustrations. Price, 38s 6d. May be obtained through L. Bruck, Medical Bookseller, Castlereagh-street, Sydney.

We wish to draw attention to the advertisement in the present issue of H. A. Rose & Co., the well-known firm of chemists and druggists. The name has long been associated with quality, neatness, and carefulness in the preparation of medicines, and the business has been in existence for more than 40 years. This pharmacy is replete with every convenience appertaining to a modern and up-to-date chemist's business; and the fact that the doors are open all night has proved a boon to many. The principals are in constant attendance during the day and the early hours of the night, and every prescription receives their personal attention.

PRACTICE WANTED in Suburbs or Town near Sydney. Communications treated confidentially.—Reply "Cash Buyer," this office.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis. — Dr. W. G. Armstrong, the Medical Officer of Health, reports for the month of June, 1905, that the registered deaths of residents in the metropolitan municipalities (Sydney and suburbs), exclusive of patients in the Gladesville and Callan Park Hospitals for the Insane, numbered 439. This figure represents an annual death-rate of 9·97 per 1000 of the estimated population, which, when corrected by the inclusion of the metropolitan proportion of the deaths in all hospitals for the insane and benevolent asylums for the aged and destitute, becomes 10·76 per 1000. The latter rate is to be regarded as the correct one. It is the lowest experienced in June since the year 1900. Diarrhœal diseases caused 18 deaths. compared with a quinquennial average for June of 23. The principal zymotic diseases, exclusive of diarrhœa, caused 17 deaths, of which one was due to scarlet fever, 6 to diphtheria, and 10 to typhoid fever. The mortality from typhoid was greater than in any June during the quinquennium, though the incidence of the disease was, as shown by the number of notifications, no greater than usual. Erysipelas and puerperal fever were each responsible for 2 deaths. Deaths from phthisis numbered 37, which is well below the quinquennial average mortality from this cause (43) for June. Cancer, with 25 deaths, was also less fatal than usual; while Bright's disease, with 29 deaths, was on the contrary more fatal than usual in June. Respiratory diseases caused 87 deaths, of which 32 were attributed to bronchitis and 50 to pneumonia. Deaths of infants under 1 year of age totalled 96, which figure corresponds to an infantile mortality rate of 77 per 1000 births. The principal causes of infantile mortality were: prematurity, 23 deaths; developmental diseases, 26 deaths; pneumonia, 14 deaths; bronchitis, 6 deaths; diseases of stomach, 5 deaths; enteritis, 10 deaths. Notified attacks of notifiable infectious disease numbered 185, of which 69 were due to scarlet fever, 74 to diphtheria, and 42 to typhoid fever.

The Birth Rate.—According to the Government Statistician's report during the month of June, 1246 children were born, and the excess of births over deaths was 785. The birth and death records are respectively 212 above and 33 below the average for June during the previous five years. The birth-rate was higher than the rate for May, which was also high, and was higher than the rate for June in last year, or any year since 1895. The mortality rate is also favourable. It was 14 per cent. below the rate for last month, and was, with the exception of 1900, the lowest for the month during the last 10 years. During the quarter ended June 30 there were 3487 births and 1455 deaths. These totals are respectively 317 and 37 above the average number registered in the June quarter during the previous five years; and the rates are respectively 7 per cent. higher and 1 per cent. lower than the corresponding quinquennial rates.

Victoria.

Food Adulteration. — During 1904 the Melbourne city analyst, Mr. F. Dunn, received for analytical purposes 146 samples of food and drink. Of 83 samples of milk subjected to analysis, 13 passed the standard of purity, 47 passed the "limit" allowed, 12 were slightly below the limit in percentage of non-fatty solids, 1 contained fatty solids equal to only 0·32 per cent., and 1 was deficient of at least 12 and probably 34 per cent. of its fatty solids. Nine samples were found to contain added water in quantities ranging from 3 to 15 per cent.; 23 were artificially coloured, and 2 contained boric acid. Six samples of bread were analysed, all of them being found free from alum or other deleterious substance, and five samples of confectionery were proved to contain no poisonous mineral colouring matter. Of 20 samples of eucalyptus oil submitted, three only passed the tests of the British Pharmacopœia. Five samples of limejuice were examined, of which one was the genuine article. Of the others one was slightly below the limit, another passed it, but contained 42 grains salicylic acid and 8 grains sulphurous acid to the imperial gallon; the third contained at least 32 per cent. added water, and the fourth 25 per cent. added water. Of six samples of limejuice cordial the analyses proved that one contained "little, if any," limejuice, and yielded 2 grains sulphurous acid to the imperial gallon; another was equally free from limejuice, but contained 19 grains sulphurous acid, and another contained some limejuice and also 14 grains salicylic acid and 25 grains sulphurous acid to the gallon. Percentages of acidity calculated as acetic acid, varying from 1·61 to 4·44, were discovered in samples of pickles, two of which contained also 7·2 grains and 12·3 grains of sulphurous acid respectively. Sausages were analysed in three samples. One contained 35·7 grains of boric acid, one 3·2 grains sulphurous acid, and the other 3·7 grains sulphurous acid per lb. of sausages. Brandy, rum and whisky also were tested, the whole of six samples analysed being "under proof." While on the whole there is steady diminution in the adulteration of milk and the commoner food articles, there is evidence that the use of preservatives of various kinds is steadily increasing, so as to have become actually a crying evil. Fresh legislation is urgently necessary to assist in guarding food supplies from all kinds of adulteration or deterioration.

South Australia.

Central Board of Health.—At a meeting of the Central Board of Health, Adelaide, held on June 21st, the Inspector of Foods and Drugs furnished reports on the condition of the milk supplied in the towns of Wallaroo, Kadina, Clare, and Kapunda, which showed that in Wallaroo the milk in almost every instance was shown to be grossly adulterated. In Kadina and Clare instances of adulteration were also disclosed. In Kapunda the milk examined proved in every case to be of excellent quality. The board resolved to call the attention of the local authorities in corporate towns, where an analyst had not already been appointed, to the advisableness of taking advantage of their power of appointment of an analyst under clause 11 of the Sale of Food and Drugs Act, 1882. The health officer at Palmerston (Dr. K. Fulton) reported that members of the crew of the steamer "Eastern" landed at Port Darwin before pratique had been awarded in accordance with the Quarantine Acts. The infectious disease returns showed 8 cases of scarlatina at Port Adelaide, 4 at Wallaroo, 3 at Adelaide, 3 at Ninnes, 2 at Glenelg, 2 at Modbury, and 1 at each of the following places:—Mount Lofty, Bowden, Port Augusta, and Thebarton. Three cases of pulmonary tuberculosis at Parkside, and one at each of the following places:—Adelaide, Clare, Burnside, Edithburgh, Ninnes, Port Adelaide, Wirrabara, Hackney, Goodwood, Yankalilla, and Normanville. Two cases of diphtheria at Unley Park, and one at each of the following places:—Blyth, Kooringa, Basket Range, East Payneham, Ninnes, near Carey's Gully, and North Walkerville. Two cases of typhoid fever at Port Pirie, and one at each of the following places:—New Glenelg, Kongal, and Unley. One case of erysipelas at each of the following places:—Glanville, Kent Town, Payneham, and Port Adelaide. Two deaths from pulmonary tuberculosis at Adelaide, two at Adelaide Hospital, and one at each of the following places:—Parkside, Snowtown, Millicent, Unley-road, Unley Park, Kensington, Norwood, Normanville, near Port Wakefield, Murray Bridge, and Glanville.

Tasmania.

Public Disinfecting Plant.—The local board of health held a conference on June 28th, the Mayor presiding, to consider the question of the erection of a public disinfecting plant, in accordance with the recommendation of the health officer, Dr. Elkington. A resolution was carried confirming the expediency of the proposal. The capital cost will be about £1000, to be defrayed by the City Council, and the annual expenditure, plus 10 per cent. on the capital cost, to cover interest and depreciation, to be borne by the local authorities interested in proportion to annual assessment of the properties. The following resolution was also carried:—"That a deputation, consisting of the Mayor and aldermen and the chairman of the local bodies, with the members of the districts, wait upon the Ministry, urging the necessity of at once providing a building suitable as an isolation hospital for infectious diseases."

New Zealand.

Typhoid Fever.—The native health officer (Dr. Pomare) has investigated a number of outbreaks of typhoid fever in various Maori settlements of the North Island. The disease appeared in every case after heavy rain, following a continuance of dry weather. Dr. Pomare states that the sickness has now been stamped out in the districts which he visited.

Queensland.

Dr. B. Burnett Ham, Commissioner of Public Health, reports for the three weeks ending July 8th:—One case of plague occurred in Brisbane during the period. Number of cases to date, 29; remaining under treatment, 1; last case reported June 14th, 1905. Number of rats and mice destroyed during two weeks: Rats, 818; mice, 114; examined at Bacteriological Institute, 244 rats and 114 mice; rats infected, 3; last infected rat reported June 23rd, 1905.

MARYBOROUGH.

Special Report of an Outbreak of Plague at Maryborough.—An outbreak of plague, attended with the deaths of eight persons, including five of one family, occurred at Maryborough, a city of 12,000 inhabitants, situated 167 miles by rail from Brisbane Case 1.—John O'C., *æt.* 17, employed at a fruiterer's shop, was taken ill on Friday, May 19th. Died at his home on Thursday, May 25th. Was seen by a local practitioner day before death. Cause of death certified as "pneumonia." Case 2.—Ellen O'C., *æt.* 7, sister of above, sickened May 28th; died May 31st. No post-mortem. Certified as "pneumonia post dengue." Case 3.—James O'C., *æt.*, 15, brother of above, taken ill May 28th; admitted to General Hospital May 29th; died May 31st. No post-mortem. Certified as "bronchopneumonia." Case 4.—Mary O'C., *æt.*, 3½, sister of above. Onset May 28th. Removed to General Hospital May 29th. Died June 3rd. Post-mortem examination June 3rd, "plague-pneumonia." Chest symptoms did not develop until fourth day in hospital. Case 5.—Richard O'C., *æt.* 10, brother of above; employed on May 27th at same shop as case 1. Taken ill May 30th. Removed to General Hospital same day. Died 2nd June. Post-mortem examination showed that death was due to "plague-pneumonia." Case (*a*)—Kate O'C., *æt.* 18, sister of above, domestic duties. Removed to General Hospital May 28th with case 2. Headache, vomiting, and pyrexia previous to admission. Discharged convalescent, June 6th, and removed to Plague Hospital as a "contact" on same day. Remains in good health. Case (*b*)—Mary O'C., *æt* 9, sister of above. Removed with case (*a*) to General Hospital on May 28th. Headache and vomiting previous to removal to hospital, and developed pain in chest while there. Discharged convalescent and removed to Plague Hospital as a "contact" on June 6th. Has remained in good health. The above cases (*a* and *b*) were the only two children of the O'C. family who survived. Case 6.—L.E., *æt.* 49, housewife, resided at corner of Sussex and Pallas streets, Maryborough. Attended cases 2 and 3 before their removal to the hospital on May 28th. Developed symptoms similar to these cases. Died at her home after three days' illness on May 31st. Death certificate refused by two local medical practitioners. Post-mortem examination ordered by the Commissioner of Public Heatlh. The body was removed and buried before examination could be carried out. Case 7.—C.B., *æt.* 22, staff nurse, General Hospital, Maryborough. Night nurse in charge of ward for month of May; had charge of cases 2, 3 and 4 from their admission until May 30th. Taken ill June 3rd with respiratory symptoms, cough, and expectoration. Temperature 105, pulse uncountable, respirations 60. She died on June 6th. The sputum contained Bac. pestis, pneumococci and streptococci. Certified as "plague-pneumonia." Case 8.—R.W., *æt.* 28, staff nurse on night duty at General Hospital, Maryborough, attended cases 4, 5 and 7. Complained of headache and malaise. Temperature 105 on morning of June 8th. Clinical symptoms of a lobular pneumonia. On 9th, cough and expectoration and pains in chest. Sputum watery and abundant, contained enormous numbers of Bac. pestis. Died June 12th of "plague-pneumonia." Case 9.—E.S., *æt.* 28, staff nurse, Maryborough General Hospital, attended case 8. Sickened June 10th. No chest symptoms. No cough. No expectoration. Temperature 103, pulse 120, respirations 23. At present in General Hospital under treatment. Case 10.—M.C., *æt.* 19, music teacher, resided at home. Father keeps a confectioner's shop in Kent-street, Maryborough. Onset 21st May. Removed to Plague Hospital on June 2nd. This case was one of ordinary bubonic plague, and has no connection with the cases reported above. This patient is now convalescent.

After the death of case 8 the General Hospital was strictly isolated, and the plague nursing staff of the Department of Public Health was under the direction of Dr. Baxter-Tyrie, one of the health officers attached to the Department. Each of the nurses and doctors received 20 c.c. of curative serum as a prophylactic dose, and, as a further precaution, the use of overalls and respirators by both nurses and doctors was insisted on. The General Hospital is still in charge of the departmental staff, and it is not anticipated that further developments will take place.

No further case of plague has occurred at Maryborough. Case 9: E.S., reported in special plague bulletin issued on 17th instant, is now convalescent. Case 10: M.C., reported in same bulletin, discharged, and the Plague Hospital closed. The house occupied by the O'C. family, together with the whole of the contents thereof, was burnt on June 3rd. All the bedding and contents of the rooms and wards occupied by the O'C. family and by the affected nurses in the Maryborough General Hospital were also destroyed by fire. All the patients and "contacts" have now been discharged from the Maryborough General Hospital. The General Hospital is at present in the hands of the departmental gang, and will undergo a thorough disinfection before being reoccupied. Meanwhile an auxiliary hospital is being conducted in the reception house buildings, which are in another quarter of the town. A detailed report of an official inquiry into the circumstances of the outbreak, together with an account of the measures taken by the department in the matter, will be forwarded next week.

IPSWICH.

Of 56 rats and 4 mice from Ipswich examined at the Bacteriological Institute during the week, none were reported to be plague-infected. A fatal case of bubonic plague occurred at Ipswich on July 5th. The patient, a female domestic servant, *æt.* 15 years, who resided at Ipswich where she was employed, was reported by the local health officer to be suffering from plague on July 3rd. The interment was conducted with the customary precautions. 47 rats and 3 mice from Ipswich were examined at the Bacteriological Institute during the week, but none were found to be plague-infected.

Plague in New South Wales.

SYDNEY.

As usual towards the end of an outbreak, plague-rats have been found at wide intervals in solitary instances. The 117th, 118th, and 119th were taken on May 4th, June 16th, and June 28th; and in the city no more cases have occurred, but the following was met with at Camperdown, a suburb about two miles west of Darling Harbour. (17) R.D.A., female, *æt.* 8, was attacked on rising on June 27th, and was admitted to the Royal Prince Alfred Hospital in the course of the day. She died about 11 p.m., after 16 hours' illness, during which she had several convulsive attacks. One of the resident medical officers (Dr. G. A. Buchanan) conducted a post-mortem examination, and in films made from the spleen observed a few bacilli somewhat resembling plague-bacilli. Cultures were made on blood serum from the spleen and heart's blood, both of which yielded a similar organism. From a bouillon subculture he inoculated a guinea-pig subcutaneously, which died in 48 hours, and in cultures made from it a morphologically similar bacillus was recovered. These proceedings were taken in a routine way, and it does not appear that plague was definitely suspected until July 10th, when the cultures were referred to the Department of Public Health. At the time of going to press the source of infection is still being inquired into. Rat-catchers are understood to have submitted a small number of specimens from the house and the immediate neighbourhood, but all have proved free from infection so far. The number of plague-rats delivered by the public and collected by the intelligence staff from the lately infected area in the city still number nearly 3000 a week, of which about 800 taken from known addresses are examined in the laboratories.

NEWCASTLE, N.S.W.

One more case has been notified. (14) J. McD., male, *æt.* 15, employed at Newcastle, resided at Stockton; attacked July 2nd, reported from Newcastle Hospital July 3rd. Diagnosis bacteriologically established by the Medicul Officer of Health (Dr. R. Dick, M.B., B.P.H.). The patient had been regularly employed for long past. He worked for an hour or two each day in a room which presented traces of infestation with rats, but neither live nor dead rats have been found. His residence was poor and filthy; but Stockton has furnished no plague-rats during the present epidemic. He went to and from his work by ferry, and consequently frequented Market Wharf, where plague-rats have been collected on several occasions, and last on June 30th. The rat-catching staff has continued steadily at work; rats are reported to be getting very scarce. Plague rodents have been found during the past month to the number of ten, at seven places, all of them in the infected neighbourhood, or actually at places which have already yielded infected rats.

THE NORTHERN RIVERS.

No further cases have occurred, and although the search has continued to a recent date no further infected rats have been discovered. The plague staffs have been withdrawn from Ballina and Lismore, the towns referred to, which are now considered to be clean.

The Health of Sydney.

Abstract of the Annual Report of the Medical Officer of Health (Dr. W. G. Armstrong) for the Year 1904.

POPULATION.—The mean population of the metropolis (Sydney and suburbs) for the year 1904, as estimated for the purpose of this report, was 516,285. The population of the city of Sydney has been estimated as 111,796, which is the same as for the year 1903. The number of dwellings in the city during 1904 was fewer than in the previous year, largely owing to the activity of the City Council and its officials in condemning insanitary dwellings; 138 houses were demolished during the year, while in their place 65 new dwellings were erected. The number of unoccupied dwellings, as shown by the return for assessment purposes to the city treasurer, increased from 499 in August, 1903, to 743 in the same month in 1904.

BIRTHS.—During the year 1904, 13,215 births were registered, or 466 more than in the previous year. Male births numbered 6769, and females 6446. The birth-rate for the year was 25·59 per 1000 of the estimated population. The illegitimate births numbered 1343, or rather over 10 per cent. of the total births.

DEATHS.—The deaths of residents in the metropolis, registered during 1904, numbered 5496. This figure excludes 137 deaths in the Gladesville and Callan Park Hospitals for the Insane, all deaths of persons residing on the shipping or islands of the harbour, and all deaths in metropolitan hospitals of persons who were not residents of the metropolis before coming into the hospitals for treatment. The number of deaths is 218 less than in the year 1903, and the resulting death-rate of 10·64 per 1000 of the estimated population is the lowest ever recorded in Sydney.

INFECTIOUS DISEASES.

Scarlet Fever.—Though scarlet fever was considerably less prevalent than in 1903, the incidence continued high, and amounted to 2·4 per 1000 of the estimated population. The recorded monthly number of attacks showed very little fluctuation until August, when it began to rise, reached a maximum of 188 in October, and thereafter fell to 136 in December; 530 males were attacked, as against 831 females. Between December 8th and 24th a localised outbreak of scarlet fever, numbering 23 cases, occurred in adjoining portions of the three contiguous boroughs of Ashfield, Burwood, and Drummoyne. This was confined to the customers of a dairy situated in Drummoyne. The outbreak was less sudden in its manifestation than is usually the case with milk epidemics. Fourteen deaths occurred from scarlet fever, corresponding to a mortality of 0·02 per 1000 of the estimated population of the metropolis. This death-rate is the lowest recorded since the year 1900. The case fatality equalled 1·03 per cent. of notified cases, and is lower than that of any year since 1898.

Diphtheria.—More attacks of diphtheria were notified than in any previous year. The number of notified cases was 738, which is equal to an attack-rate of 1·43 per 1000 of the estimated population. The incidence rate for 1903 was 1·37 per 1000. The greatest incidence was in the month of June, when 95 cases were reported. The lowest was in September, with 36. Generally speaking, diphtheria was most prevalent in the winter months. Forty-five deaths occurred from diphtheria, equivalent to an annual mortality rate of 0·08 per 1000 living. The case fatality was equal to 6·1 per cent. of all notified cases, and was lower than it has been in any year since 1899, in which year only 4·91 per cent. of attacks were fatal.

Typhoid Fever.—The notified attacks of typhoid fever in Sydney and suburbs were 665, equivalent to an attack-rate of 1·29 per 1000. The number of attacks is less than that recorded in any year since notification began, with the single exception of the year 1902, and of the attack-rate per 1000 the same statement may be made. The period of life most liable to attack was that between 10 and 15 years, after which latter age the attack-rate diminished with advancing years. 574 attacks occurred singly in 574 dwellings; 64 cases occurred in 32 dwellings at the rate of two in each dwelling; 9 cases in three dwellings at the rate of three in each, and four cases in one dwelling. Six attacks occurred in the Coast Hospital (in 4 cases nurses were attacked, and in 2 cases patients already in the hospital), four attacks occurred among the inmates of the Rydalmere Hospital for the Insane, and two each in the Sydney Hospital (nurses) and St. Vincent Hospital (one nurse). 597 of the dwellings in which typhoid fever occurred were inspected and reported on. Of that number 452 were found to have water-closets connected with the public sewers; 143 were served by pail closets; and 2 were served by cesspits. The relative incidence on houses provided with the three different types of sanitary conveniences indicated throughout the metropolis was as follows:—Among houses provided with water-closets, 1 house in every 190 was attacked; among houses with pail-closets, 1 in every 135 was attacked; and among dwellings with cesspits, 1 in every 101 was attacked. 64 deaths occurred from typhoid fever, equivalent to a mortality rate of 0·12 per 1000 of the estimated population. Of the notified attacks, 9·62 per cent. ended fatally. This case fatality is the lowest recorded since the introduction of notification. A localised outbreak of typhoid fever occurred in the month of February in the district of Surry Hills, in the city of Sydney, which was confined to the customers of a particular dairy situated in Waterloo, one of the suburbs situated immediately to the south of the city. The number of persons attacked was 23.

Bubonic Plague.—Plague appeared again in Sydney during the year 1904, but its manifestation was limited to 12 cases in human beings, of which 6 had a fatal termination. From August 15th, 1903, till early in March, 1904, no plague was found among the rats of the city. In the beginning of March a mouse trapped in the Grafton Bond by one of the City Council's staff was pronounced to have suffered from the disease. The rat-catching staff was increased from 6 to 12, and a special plague-cleansing staff of 10 men was engaged to search all premises used for the storage of grain, fodder, and other agricultural produce specially liable to rat infestation, and to destroy all rats and mice so found, similar measures having proved very successful in preventing an epidemic in 1903. The Harbour Trust Commissioners engaged a similar staff of 12 men. The plague-cleansing staff worked under the immediate supervision of one of the Council's regular sanitary inspectors, and continued in existence from March 11th till October 29th, during which period it thoroughly searched 142 produce stores and other depositories of grain, fodder or similar materials likely to be especially attractive to rats, and caught and destroyed a total of 1718 rats and 4038 mice upon such premises. The staff placed at my disposal by the Harbour Trust continued in existence from March 12th to the 31st of the same month, during which period they treated 20 produce stores, and captured 48 rats and 689 mice. The total number of mice and rats trapped during the year by the rat-catching staffs of the Department of Public Health and the City Council was 52,014. All were examined in the bacteriological laboratory of the Department of Public Health, and of the number 243 were found to have plague. Throughout the months above indicated, and even until the end of November, plague rats continued to be caught from time to time, chiefly on the wharves fronting Darling Harbour and the produce stores adjoining them. In the suburbs, it may be stated in general terms that local authorities lagged behind the city in the enforcement of measures aimed at the prevention of the spread of plague. The code of model by-laws put forth in 1903 by the State Department of Public Health "for the better prevention of the spread of plague by rats" was, it is true, voluntarily adopted by the majority of the suburban councils; but it had to be forced on a large minority by the exercise of the authority conferred by the Public Health Act on the Governor, acting by the advice of the Board of Health; and though the code has now been gazetted in the whole of the metropolitan municipalities, it has been enforced by many of the local authorities with less vigour than was desirable. It is to be hoped that the coming year will see a marked alteration in the attitude of suburban councils in this respect.

Tuberculosis.—The number of deaths registered from all forms of tuberculosis in the metropolis during 1904 was 586, or 13 less than in 1903. These figures represent more than 10 per cent. of the deaths from all causes, and are equal to a death-rate of 1·14 per 1000 of the estimated population. Phthisis, or tuberculosis of the lungs, was responsible for 458 of these deaths, tubercular meningitis for 41, and all other forms of tuberculosis for 87. The numbers for phthisis and tubercular meningitis are considerably lower than those recorded in 1903 (483 and 56 respectively), while all other forms of tuberculosis showed a higher mortality in 1904 than in 1903 (60). The inquiry into the surroundings of deaths from phthisis in the metropolis was continued in 1904 on the same lines as in 1902 and 1903. The deaths investigated numbered 461, of which 426 were certified as being due to phthisis, or tuberculosis of the lungs, while 35 were from other forms of tuberculosis. The total number of deaths registered from phthisis during the year was 458. The average duration of illness was 23 months and 7 days. This was over 4 months less than the average duration of investigated illness in 1903. Arranging the cases into groups according to duration of illness, it appears that in 19 cases the fatal illness lasted less than three months; 3 to 6 months in 37 cases, 6 to 12 months in 75 cases, 1 to 2 years in 126 cases, 2 to 5 years in 117 cases, 5 to 10 years in 31 cases, over 10 years in 7 cases. 358 persons, or 84 per cent., of the whole number of cases investigated, first became ill while residing in the city or suburbs of Sydney. In 24 cases illness began in New South Wales, but outside the metropolitan area. In 32 cases illness began outside the State of New South Wales. The statement made last year as to the absence of manifest overcrowding in phthisis death houses in 1903 may again be repeated for 1904. The total number of rooms in all such dwellings was 2440, and the total number of occupants, including the deceased, 2822. There was, therefore, an average population of 1·16 persons per room. Grouping the death houses according to the number of rooms in each—9 were two-roomed dwellings, 26 contained three rooms each, 66 contained four rooms each, 118 contained five rooms each, 139 contained six or seven rooms, and 53 contained eight rooms or more. In 160 cases, or 37 per cent., of the cases investigated, a possible source of infection was detected. The most common source was association before the patient's illness with a relative suffering from phthisis. Such a source of infection was traced in 105 instances. In most cases the deceased lived in the same house with the relative named, but in a few instances the patient and relative lived in different houses, but visited one another. Infection traced to consumptive relatives was found as follows:—Father, 18; mother, 16; brother, 21; sister, 21; husband, 7; wife, 2; son, 4; daughter, 4; uncle, 1; aunt, 1; nephew, 1; niece, 1; brother-in-law, 6; sister-in-law, 1; daughter-in-law, 1; total, 105. Besides the cases given in the above list, in which the history pointed definitely to the transference of the infection from the sick relative named, there were 58 cases in which the deceased had had a relative who had died of phthisis, but owing to a history of non-association between the deceased and the consumptive relative, or owing to the long lapse of time between such association and the beginning of the deceased's illness, it was held to be improbable that the illness of the relative had a direct causal relationship to that of the deceased. Other probable sources of infection brought to light by the inquiry were the following:—Nursing a sick consumptive, 7; from fellow-employees, 21; other forms of association with consumptives not relatives, 24; occupying a house after a consumptive, 3; total, 55. Total cases in which a probable source of infection was traced, 160.

Notification of Consumption.—A most important step was taken by the municipal council of the city of Sydney during the year 1904, by the adoption of by-laws for the compulsory notification of pulmonary consumption. The by-laws were submitted on April 25th to the health committee of the council in rough draft, and after reference to the city solicitor for a legal opinion and a final recasting into their present shape, were adopted by the council on October 18th. Their provisions are largely modelled on those of an Act which is in force in Sheffield, England. The by-laws were framed by virtue of the powers delegated to the City Council in section 200 of the City Corporation Act to make by-laws "for the promotion of the public health," and having been approved by the Crown Law Department now have the force of law within the city.

Infantile Mortality.—The deaths of children under 1 year of age in the metropolis during 1904 numbered 1316, being 23·9 per cent. of the total deaths at all ages, and equivalent to an infantile mortality rate of 99 per 1000 births. This is the lowest ever recorded in Sydney, and is 23 per cent. less than the average of the same rate for the previous 10 years. The principal causes of infantile mortality during the year were—whooping-cough, 30; diarrhœa, 52; prematurity, 242; developmental diseases, 300; convulsions, 42; meningitis, 18; bronchitis, 44; pneumonia, 65; enteritis, 379. The deaths from prematurity numbered 242, as compared with an annual average during the five previous years of 205. There was a diminished mortality among infants from diarrhœal diseases (including diarrhœa, dysentery, cholera infantum, enteritis and gastro-enteritis). The sum of the deaths from these causes at all ages was 598, of whom 431, or 72 per cent., were children under 1 year of age. The average annual number of infantile deaths from diarrhœal diseases during the three years, 1901-1903, was 576. If the deaths of infants from diarrhœal diseases during the year 1904 be expressed in proportion to every 1000 births the rate yielded for the whole metropolis will be 32 per 1000, or about one-third of the total infantile mortality. The causes believed to be responsible for the prevalence of infantile diarrhœa in the summer months are complex. The modern view of the etiology of epidemic diarrhœa is that it is caused by a micro-organism, and depends wholly or nearly so upon high temperature, deficiency of rainfall, and the pollution of food, especially milk. Probably the two conditions first enumerated merely act as subservient causes in the production of food pollution. There is at least no doubt that children who are entirely breast-fed during the earlier months of their life escape the dangers of infantile diarrhœa to a degree which is most remarkable, compared with the liability of children who are nourished from an early date upon cows' milk or artificial foods. In 1903 the health committee of the municipal council for the city of Sydney authorised the issue of a circular leaflet setting forth the dangers of infantile diarrhœa, and giving some plain instructions in the feeding of young children. The leaflet in question was distributed through the post to all householders of dwellings in poor and thickly-populated neighbourhoods in the city of Sydney in which a birth had been recently registered. Since May 11th, 1904, this action has been supplemented by a domiciliary visit to all houses in such districts from the City Council's lady sanitary inspector as soon as possible after the registration of a birth therein. The object of these visits has been to instruct and advise mothers, especially the younger women, in the feeding of infants, to impress on them the importance of cleanliness, and particularly the importance of protecting milk and other foods from possible pollution, to record and report the conditions observed in and about the dwelling, so that defects in sanitary conditions might be remedied by action under the Public Health Act and the Council's by-laws, and to leave at each house a copy of the leaflet on infantile diarrhœa. Mothers were strongly urged to suckle their children if such a proceeding were possible. The number of houses so visited between May 11th and December 31st was 1414.

Adulteration of Food.—Twenty municipalities took action during 1904 in the direction of the suppression of the adulteration of food The number of samples purchased for analysis numbered 814, of which 500 were purchased in the city and 314 in the suburbs; 625 samples proved to be genuine, and 189 adulterated. Milk samples numbered 690, of which 541 were genuine and 149 adulterated. The proportion of ascertained adulteration was therefore less than 22 per cent. of the total samples taken, compared with 29 per cent. of adulteration in 1903. The following shows the nature and extent of the ascertained adulteration of milk in Sydney and suburbs during the year 1904:—Of the total samples of milk analysed, 130 were adulterated by addition of water, 20 were adulterated by preservatives, and 9 adulterated by abstraction of fat. While 63 per cent. of the samples of milk analysed in 1901 were found to be adulterated, less than 22 per cent. were adulterated in 1904, and the adulteration by preservatives fell from 41 per cent. of samples in the former year to 3 per cent. in the latter.

Dairies.—The number of registered dairies in the municipalities in the metropolitan combined districts during 1904 was 412, showing an increase of 13 over the number in the previous year. In addition to the above, 2084 milk shops in the city and suburbs were inspected and reported on. Of the total number of dairies, 134 are classed as "good," 259 as "fair," and 19 as "bad." There has been a decrease of "bad" dairies since last year, when 26 were thus classed, and also a diminution of "good" dairies from 156 in 1903. The sanitary conditions found in the milk shops of the metropolis, as distinct from the dairies, have very much improved during recent years, and still continue to improve.

Infectious Diseases on Dairy Premises.—In 10 instances during the year cases of infectious disease have been notified upon dairy premises, or those occupied by milk vendors, including six attacks of typhoid fever, one of diphtheria, and three of scarlet fever. In each case measures were taken (immediate removal of patient and disinfection of the premises, or in default closure of the dairy) to prevent the spread of infection by means of the milk.

Noxious Trades.—The year under review has been a satisfactory one in most matters relating to the control of the noxious trades. Fewer complaints were received of nuisances said to emanate from these traders' establishments than in previous years, and in nearly every instance in which complaints were made and proved to have any foundation in fact, the cause of the nuisance could be traced, and was traced, to the offending establishment, and appropriate measures were taken to guard against a recurrence. The class of noxious trades which has given rise to most complaints of nuisances during the past year, as in former years, are the fat-extracting plants, or to speak more accurately, those trades which are classed together under the regulations as Class A, all of which are closely assimilated in the nature of their operations to the business of fat extracting. As far as cleanliness of establishments of this class is concerned, there has been a marked and yearly increasing improvement since the Noxious Trades Act became law. It is now but rarely that conditions are revealed on a visit of inspection which make it advisable to recommend local authorities to prosecute traders for neglect in the observation of the regulations which aim at the removal of filth and the prevention of its accumulation upon traders' premises. During the year the trade of manure-making has been added by proclamation to the list of noxious trades. It is defined as the manufacture of manure from or with the assistance of prutescible substances. There is only one establishment at present concerned wholly in this business in the metropolitan area, though at one time during the year there was a second, which has since been closed up. The proclamation of the trade, and a code of regulations to govern it, upon the recommendation of the Board of Health, has been productive of good results, and no complaints of nuisances arising from the establishment still in operation have been received.

Disinfection of Infected Dwellings and Goods.—Some progress in the practice of disinfecting dwellings after the occurrence in them of attacks of infectious diseases has been made in the metropolis during the past 12 months. The city of Sydney has maintained for four years a regular disinfecting staff, and the municipal disinfection of dwellings in the city after infectious disease has become a routine of administration, and is compulsory upon householders unless a medical certificate of disinfection is furnished in accordance with the terms of section 34 of the Public Health Act. It is also done free of charge. The process employed is that of spraying surfaces with a 2 per cent. solution of formaldehyde, while floors are swilled with a 1-1000 acid solution of corrosive sublimate. Textile fabrics, bedding, etc., are either sprayed with the former solution, or conveyed to the municipal disinfecting station for steam disinfection, according to the circumstances of the case. The steam disinfecting installation employed is that known as the Washington Lyon, and is supplied with steam generated in the garbage destructor furnace, to which the disinfector is attached. Dwellings are similarly disinfected after deaths in them from phthisis. During 1905 the disinfection of dwellings within the city of Sydney after they have been vacated by living consumptives will also be performed in accordance with the system of compulsory notification of phthisis introduced in the municipality during 1904. In the suburbs sanitary conditions have not been advanced so far as in the city. Nearly all the suburban municipalities are oppressed by want of funds, and find it very hard work to maintain the sanitary staffs necessary for the performance of the most primitive sanitary duties without attaining to the refinement of special disinfecting staffs. The total number of dwellings disinfected during the year in the metropolitan combined districts has been, according to the returns of the local authorities themselves, 726, of which 418 were in the city and 308 in the suburbs.

House-to-House Inspection.—The number of premises inspected during the year 1904 was 19,039, or about 2000 less than the actual number in the city. Most of the drainage reconstruction and other structural works required to put dwellings in the city into a sanitary condition have been completed, and will probably be entirely so by the middle of 1905.

The Sanitary Work of the Year.—Reports numbering 161, and dealing with a large variety of subjects, were forwarded to the local authorities of the metropolitan combined districts. In addition to the number given above, 64 reports on dairies and 345 reports on the condition of noxious traders' establishments were submitted. Visits of inspection were made during the year to the garbage depôts of all the boroughs in the combined districts possessing such an institution, and reports upon the conditions observed in connection with the depôts were forwarded to the local authorities of Camperdown, Manly, North Sydney, Paddington, St. Peters, and Waverley. The sites of a considerable number of proposed installations for the treatment of household sewage in septic tanks and bacteriological filter-beds were inspected and reported on. The employment of bacteriological installations for dealing with household sewage is extending rather rapidly in some of the unsewered districts surrounding the metropolis, and is proving on the whole satisfactory. It is becoming specially popular in the residential districts on the Milson's Point railway line, where many large dwellings now treat their liquid wastes in this manner with a good deal of success where the tanks and filter-beds are constructed in accordance with the dictates of sound experience. The Royal North Shore Hospital may be referred to as an institution which effectually deals with the whole of its sewage on bacteriological lines by means of a septic tank and percolating filter-bed. So far, the installation at this hospital is working very well, and appears to give rise to no difficulties or nuisances.

HOSPITAL INTELLIGENCE.

Adelaide Hospital.—From the thirty-fifth annual report of the condition and progress of the Adelaide Hospital for the year ending December 31st, 1904, we learn that the number of patients admitted was 2724, of whom 265 died. The average number of days patients discharged have been in hospital, 28. The total number of attendances of out-patients was 20,818. The total annual expenditure was £15,491 7s 4d. The average cost per bed occupied was £68 16s 10d. The statistics for the year, as compared with those of 1903, show the following increases, viz. :—£78 11s 5d in the amount of fees received for the maintenance of patients, 18s in fees received towards maintenance based on the total average of patients, and not deducted in calculating the annual cost of each patient, and 759 in attendance of out-patients; also the following decreases: 331 in the number of patients admitted, 26 in the number of deaths, and £2051 3s 4d in the total expenditure. Ninety-three patients have been to the Convalescent Hospital, Semaphore, at a cost to this institution of £84 14s 3d. The number of cases of enteric fever treated was 42, with 7 deaths, showing a mortality percentage of 16·6. Mr. F. T. Trott, L.D.S., R.C.S. (Eng.), dental surgeon to the hospital, has attended 281 cases of dentistry during the year. The board of management was reappointed, with the Hon. Geo Brookman, M.L.C., as chairman. The house, finance, and medical committees were reappointed. Dr. Smeaton resigned his position as medical superintendent, and was succeeded by Dr. Chapple. The following honorary medical officers were appointed for a term of three years :—Dr. R. S. Rogers, physician (reappointed); Dr. A. W. Hill, ophthalmic surgeon (reappointed); Dr. A. M. Cudmore, surgeon; Dr. Frank Magarey, assistant surgeon; Dr. C. H. Reissmann, assistant physician (consumptive department); Mr. A. W. Semmens, masseur (reappointed) and Mr. F. T. Trott, dentist (reappointed). Dr. L. W. Bickle, who after several years retired from his position as honorary surgeon, was unanimously accorded a vote of thanks for the valuable services he rendered to the institution. Dr. S. M. Verco resigned his position as honorary assistant bacteriologist, and was succeeded by Dr. H. H. E. Russell. The extensive alterations to the operating theatre and the addition of a steam sterilising plant have now been completed, which have brought the theatre up to efficiency on the latest scientific principles, and it is now in full working order. The consumptive department on North Terrace, for the reception of incurable cases of phthisis, etc., was opened in November. The board are pleased to report that a further saving of £2051 has been made in the expenditure for 1904, as compared with previous year, the total expenses for the year being £15,491, against £17,542 for 1903. There were 30 cases of midwifery attended to during the year. Dr. Anstey Giles and Dr. Angas Johnson were granted six months' leave of absence. Arrangements have been made whereby a fire reel and appliances are kept on the premises. The staff are regularly exercised in fire drill. It was decided that a fee of 21s for a term of three months be charged to those who attend the bacteriological department. The board tender their best thanks to the honorary staff for their valuable services rendered to the institution throughout the year.

Newcastle Hospital, N.S.W.—The financial state of the Newcastle Hospital is giving the committee some concern. A statement prepared by the secretary of the estimated receipts and expenditure for the ensuing six months shows that the institution is threatened with a deficit of at least £750 by the end of the year.

Tamworth Hospital, N.S.W.—At a meeting of the hospital committee last month a letter was read from Mr. Charles Baldwin, of Durham Court, offering a donation of £500 for the erection of an operating theatre at the hospital if the committee furnished it with up-to-date appliances. The offer was accepted. The committee considered the question of placing unattached doctors on the hospital medical staff. At present the staff consists of two paid doctors. It is contended that the remaining medical men should have the privilege of being attached as honorary members. An amendment was carried that the matter should be discussed by the subscribers to the hospital.

Launceston Hospital, Tasmania.—At the last meeting of the board of the General Hospital the house surgeon's report as submitted showed patients remaining on June 1st, 83; admitted during June, 68; discharged, 57; died, 5; remaining on June 12th, 89. During May there were 105 out-patients (new cases) treated now remaining in the Convalescent Home, 6. The Chairman stated that the financial year ending June 30th would show a surplus of £122, though the hospital resources had been taxed to the utmost. The receipts from fees would show an increase over those of any former years, and it was estimated that £1588 would be received. There were uncovered balances of £547 to meet, towards which the surplus would go, and these had nothing to do with the operations of 1904-5. Not more than one-half of the outstanding fees were recoverable. It was decided that a call of the board be made for consideration of the chairman's motion—"That an offer of £500 from five anonymous donors towards erection of a new operating theatre should be accepted, the donors being now willing to modify their first condition so that £500 shall be raised from the public and the board give £500 from their private funds, the offer to be open for 12 months."

Coast Hospital, N.S.W.—According to a return compiled by the Board of Health, 262 patients were admitted to the Coast Hospital during June. The number of general cases was 191, whilst 71 patients suffered from infectious diseases. During the same period 244 patients were discharged, 202 being cured, 41 relieved, and 1 unrelieved. Eleven patients died. At the close of June 287 beds were occupied. The number of general cases (191) was exactly the same as those admitted during the month. The other patients included 96 suffering from infectious diseases, such as enteric fever, erysipelas, diphtheria, and scarlet fever.

Isolation Hospital, Adelaide.—The local boards of health have in the past experienced some difficulty in obtaining isolated accommodation for the treatment of cases of infectious diseases. The Government have now come to the rescue, and the Chief Secretary (Hon. J. Vardon) proposes to fit up a portion of the old Lunatic Asylum on North Terrace for the purpose, on condition that the various local boards pay 30s a week for each patient recommended for treatment. The Adelaide local board has agreed to the terms proposed.

The Royal Alexandra Hospital for Sick Children, Sydney.—The tenth clinical afternoon was held on Friday, June 23rd; Dr. Binney presided. The Chairman exhibited a boy, aged 10 years, suffering from pseudo-hypertrophic muscular paralysis. The unusual features were marked contractures of the lower limbs and a considerable degree of weakness in the muscles of the forearm. A brother of the patient was affected in an almost identical manner. Dr. **Littlejohn** exhibited three cretins that he had been treating with thyroid gland substance. They all showed a great improvement. Dr. **Litchfield** showed a baby suffering from a moderate degree of sclerema neonatorum. Dr. **Wade** exhibited a baby, 4 months old, showing a lateral curvature of spine, which did not disappear when the child was suspended by the arms. The child also had a congenital ptosis on one side, and a sister was reported to be suffering from congenital dislocation of the hip. He also showed a girl, aged 5 years, with three bald patches on its scalp, which he diagnosed to be alopecia areata; a boy, aged 7 years, with a ringworm-like eruption on his neck and a papular eruption on the back of both hands; and a girl, aged 7 years, suffering from warty condylomata springing from the anal margin. He did not regard these as syphilitic in origin, and he thought that a fair proportion of condylomata in children were not specific but due to some local irritation. These clinical meetings are held on the last Friday but one of each month, and members of the profession are invited to take part in the proceedings.

Oral Sepsis.—"EUMENTHOL JUJUBES" (Hudson)
Made in Australia.

A Gum pastille containing the active constituents of well-known Antiseptics, Eucalyptus Globulus, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic, prophylactic, reducing sensibility of mucous membrane W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after a comparative test of "Eumenthol Jujubes" and beech-wood Creasote, reports that there is little difference in their bactericidal action. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creasote." G. Hudson, Manufacturing Chemist, Ipswich, Queensland. London Agent: W. F. Pasmore, Chemist, 320 Regent-street, W. —[Advt.]

MEDICAL NOTES.

Charitable Donations and Bequests.—The executors of James Loudon, deceased, late of Manningham-road, Parkville, Victoria, forwarded cheques for the sum of £125 to each of the following institutions, making a total of £975 received by each during the last 12 months:—The Melbourne Hospital, the Alfred Hospital, the Melbourne Benevolent Asylum, the Women's Hospital, the Victorian Homes for Aged and Infirm (late Immigrants' Aid Society), the Austin Hospital, the Victorian Infant Asylum and Foundling Hospital, the Melbourne Ladies' Benevolent Society.

Consumptives' Hospital for Wellington, N.Z.—The Wellington Savage Club gave a successful entertainment in the Town Hall, in aid of the fund for a consumptives' hospital. In the course of an address, Dr. Newman stated that when the public meeting which started the movement was held several speakers were pessimistic regarding the willingness of Wellington to contribute the £2000 required. Within a month, however, the people of Wellington had enabled himself and Dr. Valentine (the trustees) to place £2050 in cash in the bank, and he had further promises for some £300. Dr. Newman mentioned that the Hutt district had contributed £180, of which £140 had been collected by a committee of ladies. A Petone committee of ladies had collected £60. In addition to these sums, other contributions were to come from a bazaar and several concerts.

National Association for the Prevention of Consumption.—A deputation from the New South Wales branch of the National Association for the Prevention of Consumption, consisting of Sir P. Sydney Jones, Mr. F. Grimley, and Dr. G. L. O'Neill, waited on the Minister for Public Instruction on June 26th. The deputation asked that their pamphlet on "How to Prevent Consumption" might be distributed to all the Public School teachers in the State, with the request that they should several times each year read and explain its contents to the children under their care, and that the elder children should be supplied with copies for perusal by their parents. The Minister (the Hon. B. B. O'Conor) said that the objects of the deputation had his fullest sympathy, and promised to accede to their requests.

University Dental School.—The annual réunion of the University of Sydney dental graduates and undergraduates was held on July 1st at the A B C Café, Pitt-street. Mr. A. P. Dolan, L.D.S., presided over a large gathering. The usual loyal toast having been honoured, Dr. Hinder proposed "The University Dental School." He said they could not honour a toast such as that without coupling the name of Professor Anderson Stuart. He was their chief, and had borne the bulk of the work in connection with the organisation of the school. Professor Anderson Stuart, in replying, congratulated them on having lady members of the profession present, and made reference to the amalgamation of the two dental hospitals in Sydney, saying that nothing could promise better than the united hospital did at present. Mr. J. H. Bradley, L.D.S., proposed "The Teaching Staff." Dr. Fairfax Reading, in responding, said he thought the results of the men who had graduated from the school would be a credit to any school in the world. Mr. Neave proposed "Our Guests," and Dr. Burne, in responding, referred to the dental schools he had visited in America and other parts of the world. Professor Welsh proposed "Students, Past and Present," which was responded to by Mr. G. Bond, L.D.S., and Mr. J. Punch.

Sydney Ladies' Sanitary Association.—At a meeting of the Ladies' Sanitary Association last month the city health officer, Dr. Armstrong, delivered a lecture on "The Infantile Mortality and the Milk Supply." He dealt with the methods of the production and distribution of milk for infants, and stated that since the introduction of the Dairies' Supervision Act in 1886 the infantile mortality in the metropolis had fallen from 170 per 1000 to 98 per 1000 in 1904. He spoke of the systems adopted in London, Rochester (U.S.A.), and many of the Continental cities as to the production and distribution of pure milk for infants in the poor and thickly-populated districts. Depôts were established, he said, for this purpose under strict supervision, and the results had been highly satisfactory. He suggested that something of the sort might be adopted in this country with very great advantage.

Amalgamation of State Laboratories in Victoria.—It has been decided to amalgamate the various State laboratories in Victoria and place them under one roof and one management. Mr. Percy Wilkinson, Government Analyst, is to be head of the amalgamated laboratories. It has not yet been decided where the amalgamated laboratory is to be placed, and the amount of the savings will not be known till the new plan is in operation. The Cabinet has decided to call for applications for the position of agricultural chemist, which is at present vacant. It is intended that the new chemist shall give his time chiefly to original research work in connection with the lands of the State and agricultural chemistry, and take an important part in the education policy of the department. All the routine work will be done in the amalgamated laboratory.

Melbourne Milk Supply.—Judging by the results obtained by Dr. R. J. Bull, acting lecturer in bacteriology in the University of Melbourne, it would appear that the milk supplied to Melbourne is free from any contamination with tubercle bacilli. Early in this year some 30 samples of milk were collected from milk carts in the city, and were examined with a view of detecting in them the existence or not of tubercle bacilli. The method adopted by Dr. Bull was to inject into the peritoneal cavity of a guinea-pig 5 cubic centimetres of sediment obtained by sedimenting about half a pint of milk for 24 hours in a cool room. The guinea-pigs were weighed at the outset and again at death. Eight of the animals died a month after the injection (January 15th, 1905) as a result of a spell of hot weather. The remaining animals were killed on February 22nd, two months or more after the injections. In all cases the animals were quite healthy, and exhibited no sign of tuberculosis, so that there was no indication of the presence of tubercle bacilli in any of the samples. Incidentally, another important fact bearing on the purity of the milk supply has been brought out as a result of these examinations. On previous occasions numbers of guinea-pigs have invariably succumbed to septicæmia within a few days of the injections, but no deaths from this cause occurred on this occasion—thus indicating general cleanliness in milking by cowkeepers and absence of the inflammatory condition of the udders of the cows from which the milk was taken.

District Trained Nursing Society, S.A.—At the annual meeting of the Hindmarsh branch of the District Trained Nursing Society, held in the local Town Hall, the Mayor presided. In the absence of the secretary (Miss F. E. Mitton) Alderman Hocking read the annual report, which showed that the local branch of the society was started six years ago, and there were six original members still on the committee, inclusive of Alderman Hocking. The year had been the most successful financially. The income had been £90, and of that amount £13 had been received from the Transvaal war nursing fund, and £17 net proceeds of a Continental; £85 had been sent to the central branch. Nurse Morris had done her work well, and during her absence through illness for some time Nurses Main and Newbold had carried out her duties. The number of patients was 329, and 2594 visits had been made, an increase of 74 patients and 175 visits on the previous year. The Transvaal money had been expended in necessaries for the sick, and also sick comforts for the poor. Parcels of clothing had been received and distributed. Nurse Hinde, who for over two years had been employed at Hindmarsh, had died, and sympathy with her friends was expressed. There were 19 collectors, and the total received by them was £60 10s.

PRACTICES FOR SALE.

N.S.W.: 720.—In large town, cash take £1000; hos. and other appts. 719.—Unopp., cash take £600 to £700; hos., £200; no clubs; price, £150. 605.—In the mountains, cash take £500; two appts.; offer wanted. 603.—South, good town, average cash take £1300; price, £500. 517.—Sub. prac., to be sold with residence for value of the latter; valuation by lending firm, £2750. 506.—Large town, South, cash take £780; appts., £250; price, £300.

S.A.: 521.—Adelaide prac., cash take £1500; appts., £200. 518.—In Adelaide suburbs, cash take £860; appts., £260; price, £400. 522.—In Adelaide suburbs, cash take £500; capable enlargement, owner there 10 years; prac. and house, £500.

Tas.: 519.—City prac., cash take £600; appts., £250; price, £150. 520.—Unopp., £600 to £700; appts., £160; splendid district; price, £110. 616.—Unopp., £500, of which £300 is appts.; price, £100.

N.Z.: 607.—A city specialist's prac. for sale, eye, ear, nose and throat. 502.—Unopp., near Christchurch, £600; price, £110.

Many others. Send for list.

MR. F. W. LOXTON, MEDICAL AGENT,
16 O'Connell-street, Sydney.—[ADVT.]

MR. J. C. HALLAM, Chemist, of 52 College-street, Sydney, has—in partnership with his former assistant, Mr. A. T. Harris—purchased the old established pharmacy business of Messrs. Willows & Clapham, at the corner of George and Hunter streets, Sydney. (See announcement in our advertising columns.) Mr. Hallam will continue to conduct the College-street business, while Mr. Harris will manage the George-street shop. Mr. Hallam's reputation as a dispensing chemist stands very high with the medical profession in Sydney.

Messrs. Parke, Davis & Co. direct attention to their advertisement on page 12.—[ADVT.]

PERSONAL ITEMS.

We heartily congratulate Dr. Philip Sydney Jones, of Sydney, on his being created a Knight Bachelor. At the last meeting of the Senate of the University of Sydney the Chancellor, Sir Normand MacLaurin, on behalf of the Senate, congratulated Sir Philip Sydney Jones, Vice-Chancellor, upon the honour conferred upon him. It is proposed that Sir Philip's portrait should be painted and hung in the great hall of the University. At the last meeting of the Council of the New South Wales Branch of the British Medical Association it was decided to take steps to raise a fund for this purpose. All donations should be forwarded to the Honorary Treasurer of the Branch at 121 Bathurst-street.

The installation of Dr. W. Balls-Headley as Grand Master of the Masonic body in Victoria was carried out in Melbourne last month with impressive ceremonial.

Dr. J. V. McCreery, Inspector of Lunatic Asylums in Victoria, is about to retire. He is one of the veterans of the Victorian Civil Service, receiving his first appointment over 40 years ago. Several important reforms were accomplished in the management and treatment of the insane by the representations of Dr. McCreery, and his retirement will be a distinct loss to the State.

Dr. John Merrilees, of Hawthorn, Victoria, has obtained the Fellowship of the Royal College of Surgeons, Edinburgh.

Dr. Barcroft, of Hawke's Bay (N.Z.), left for Fiji by the Moana on May 17th, *en route* to Canada and Europe.

Dr. Bedford, of Ponsonby (N.Z.), who left by last month's mail steamer for San Francisco, has decided to proceed on to Europe for a short trip.

The Senate of the Aberdeen University have conferred the honarary degree of LL.D. on Dr. MacGregor, Inspector-General of Asylums of New Zealand. Dr. MacGregor graduated M.A. at Aberdeen University in 1866, and M.B., C.M. at Edinburgh in 1870, and was for several years subsequently Professor of Mental Science in the Otago University.

Dr. J. B. Thomson, resident surgeon to the Arrowton Hospital, has resigned his position in order to take up city practice in Dunedin.

His Majesty the King has approved of the selection and admission of Major G. Lane Mullins, M.D., of Sydney, as a Knight of Grace of the Order of the Hospital of St. John of Jerusalem in England.

Dr. W. J. Will, J.P., of Abbotsford (N.Z.), has had the Honorary Associate of the Order of St. John of Jerusalem in England conferred upon him, in recognition of his services in connection with the work of the St. John Ambulance Association.

Dr. F. R. Riley has been elected to one of the Leith Ward seats in the Dunedin City Council.

Dr. W. A. Fairclough has left Dunedin for London, to visit hospitals for a year or two, after which he will return to practice in that city.

At the recent military examinations Captain J. MacPherson, of the Australian Field Artillery, at Young, N.S.W., passed with special mention and distinction in all subjects.

Dr. D. McM. Officer has been elected a vice-president of the Melbourne Philharmonic Society.

The ceremony of unveiling the lamp erected in Deniliquin (N.S.W.) to perpetuate the memory of Dr. Alfred William Finch Noyes took place last month in the presence of a large gathering of townspeople. The lamp has been erected by voluntary subscriptions as a memorial to the late Dr. Noyes, who for nearly half a century was associated with all local movements, and was hospital surgeon for 45 years.

Dr. Handcock, of Goulburn (N.S.W.), has been elected president of the local Camera Club.

Dr. Worrall has moved his consulting rooms to 183 Macquarie-street, corner of Hunter-street, Sydney.

Dr. C. Hardcastle has disposed of his practice at Hillgrove (N.S.W.) to Dr. Costelloe, late of Balranald (N.S.W.).

Dr. F. J. Dowling, formerly of Church-street, Richmond (Victoria), who is leaving for Western Australia, was, at a meeting of a few of his friends, presented with a purse of sovereigns as a mark of esteem and earnestness of their wishes for his future success.

Brigade-Surgeon Lieutenant-Colonel Robert Charles Earle, New Zealand Volunteer Medical Staff, has retired with rank of Lieutenant-Colonel.

Dr. H. C. Garde has resumed the practice of his profession in Maryborough, Queensland.

The officers of the Yarra Bend Hospital for the Insane, Melbourne, bade farewell to their late superintendent, Dr. W. L. Watkins, who is retiring from the service after 35 years in the Lunacy Department. A handsome set of silver entrée dishes and a group photograph of the doctor and his staff of executive officers were presented to him by Dr. A. J. W. Philpott, the deputy medical superintendent.

Dr. M. U. O'Sullivan, of Melbourne, who is now visiting Europe, has obtained the Fellowship of the Royal College of Surgeons, Ireland, by examination.

Mr. Thomas Evans, ophthalmic surgeon, of Macquarie-street, Sydney, left for a trip to Vancouver on July 10th.

Dr. D. Luker is removing from 183A Liverpool-street, Sydney, to 42 College-street.

Dr. J. McCall, M.H.A., late Chief Secretary of Tasmania, has returned from a trip to the old country.

Dr. Norris Wilkinson has disposed of his practice at Evandale, Tasmania, to Dr. Cummings, of Scottsdale. The former is leaving the State this month.

Dr. Campbell has arrived from Glasgow to enter into partnership with Dr. Gregory Sprott, of Hobart.

Dr. W. V. Shone, who has entered into partnership with Dr. A. F. J. Mickle, of Christchurch, N.Z., is in sole charge of the joint practice during the absence in England of Dr. Mickle.

Dr. E. J. Stuckey, of Adelaide, intends to leave Sydney for China, on August 5, under engagement to the London Missionary Society. He will occupy the position formerly held by Dr. S. McFarlane.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Crooke, Robert Warren, L.R.C.P. (Edin.), L.R.C.S. (Edin.), L.F.P.S. (Glasg.), to be Government Medical Officer and Vaccinator at Gunnedah, *vice* H. E. Lee, resigned.

D'Arcy, Constance E., M.B., Ch.M. (Syd.), to be Resident Medical Officer, Royal Hospital for Women, Sydney.

Dey, Robert, M.B., (Syd.), to be an "appointed member" of the Licensing Court for the Licensing District of Bourke.

Paul, G. F., M.D. (Brux.), M.R.C.S., L.R.C.P. (Lond.), to be Government Medical Officer and Vaccinator at Cobar, *vice* W. C. Robinson, resigned.

VICTORIA.

To be Officers of Health.

Anderson, James Fisher, L.R.C.P., United Shire of Newham, *vice* Jacob Rosenthal, M.B., resigned.
Morris, John Newman, M.B., Shire of Violet Town, *vice* Charles Joseph Sabelberg, M.B., resigned.
Rinder, Alfred William, M.R.C.P., Borough of Tarnagulla and Shire of Bet Bet.
Thomson, Matthew Barclay, M.B., Shire of Dandenong.

SOUTH AUSTRALIA.

Downey, M. H., to be Assistant Resident Medical Officer of the Parkside Lunatic Asylum, in place of Dr. Cumpston, resigned.
Wells, C. V., to be Medical Officer to the Gladstone Gaol, in place of A. F. Smith, deceased.

The following Appointments in the Adelaide Hospital have been made by the Executive Council:—

Borthwick, Thomas, M.B., Hon. Bacteriologist.
Hamilton, J. A. G., M.B., Hon. Gynæcologist.
Johnson, E. A., M.R.C.S., Hon. Assistant Physician.
Lynch, A. F., M.B., B.S., Hon. Pathologist.
Todd, C. E., M.D., Hon. Assistant Surgeon.
Verco, W. A., M.B., B.S., Hon. Assistant Gynæcologist.
Wilson, T. G., F.R.C.S., Hon. Assistant Gynæcologist.

WEST AUSTRALIA.

Macmillan, J. G., to be Officer of Health at Boulder and Kalgoorlie.

TASMANIA.

Blanchard, A., M.B., to be Public Vaccinator at Ringarooma, *vice* Dr. Cummings, resigned.
Blaubaum, A., M.B., to be Public Vaccinator for the Ringarooma District, *vice* Dr. Cummings, resigned.

NEW ZEALAND.

The undermentioned persons to be Public Vaccinators for the districts set opposite their names respectively:—

Browne, John Walter, M.B., B.S. (R.U., Irel.), Rawene and Kohukohu.
Harding, Harold William Litton, M.R.C.S. (Eng.), L.R.C.P. (Lond.), districts of Upper Hutt, Lower Hutt, and Petone.
Keller, Peter Martin, M.D. (Philadelphia), district of Whangarei.
Keller, Florence, M.D. (Chicago), district of Whangarei.

Health Officer.

Bett, Francis Arnot, M.B., B.S. (N.Z.), to be a Health Officer for the Port of Thames, *vice* Dr. Aubin, absent on leave.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

TASMANIA.

Blaubaum, Athol, M.B. (Melb.), 1904; Ch.B. (Melb.), 1904.
Darby, George Robert, M.B. (Melb.), 1905; Ch.B. (Melb.), 1905.
Maffey, John, L.R.C.P. (Edin.), 1869; L.R.C.S. (Edin.), 1869.
Watt, James, C.M. (Edin.), 1895; M.D. (Edin.), 1896.

VICTORIA.

Macdonald, Archibald, jun., M.B. *et* Ch.B. (Melb.), 1905.

Additional Qualification Registered.

Dennis, Charles Edgar, M.D. (Melb.), 1905.

QUEENSLAND.

Baldwin, Mary, M.B., B.S. (Melb.), 1902.
Bond, Lionel Wilfred, M.B., B.S. (Syd.), 1904.
Brade, Gerald Francis, M.B. (Syd.), 1899.
Cameron, Donald, L.R.C.P. & S. (Edin.), 1903; L.F.P.S. (Glasg.), 1903.
Coto, Daniel Samuel, L.R.C.P.S. (Edin.), L.F.P.S. (Glasg.), 1900.
Foxton, Harold Vernon, M.B., B.S. (Melb.), 1905.
Harlin, Robina, *née* McGregor, M.B., Mast. Surg. (Edin.), 1899.
Macbirnie, Stuart, B.M., M.S. (Glasg.), 1890.
Morris, Andrew Bernard, M.B., Ch.B. (Aberd.), 1903.
Rainer, William George, L.R.C.P., L.R.C.S. (Edin.), 1894; L.F. and P.S. (Glasg.), and L.M.
Shellshear, Cyril, M.B., M.Ch. (Syd.), 1905.
Stewart, Herbert Jamieson, M.B., B.S. (Edin.), 1904.
Thomson, Jack Mowbray, M.B., M.Ch (Syd.), 1903.
Ure, Sarah Louisa, M.B. (Syd.), 1905.
Williams, Adela, M.B., Ch.B. (Melb.), 1904.
Young, Edgar Harold, M.B. (Syd.), 1905.

BIRTHS, MARRIAGE AND DEATHS.

BIRTHS.

BAUR.—June 26th, at Medlow Bath (N.S.W.), the wife of Dr. F. G. Baur—a son.

BLAXLAND.—June 19th, to Dr. and Mrs. E. G. Blaxland, Burwood-road, Burwood, Sydney—a son.

BROADBENT.—June 23rd, the wife of Percy L. Broadbent, M.B., Ch.M., of Rydalmere, Sydney—a daughter.

HAMILTON.—June 28th, at Nathalia (Victoria), the wife of H. Talbot Hamilton, M.B., B.S.—a daughter.

KITCHEN.—July 6th, at "Omro," Park-street, (South Melbourne), the wife of Dr. J. J. Kitchen—a daughter.

MACDONALD.—June 14th, at Addington House, West-terrace, Adelaide, the wife of Dr. D. MacDonald—a son.

McEVOY.—June 16th, at South Brisbane, the wife of Dr. J. J. S. McEvoy, of Beenleigh (Queensland)—a daughter.

TYRIE.—July 2nd, at Bodelwyn, Hamilton, the wife of Dr. Baxter Tyrie, of Brisbane—a daughter.

VANCE.—June 11th, at High-street, St. Kilda, Melbourne, the wife of Dr. W. B. Vance—a son.

MARRIAGE.

STEVENS—THOMAS.—May 3rd, 1905, at Townsville, Queensland, by the Rev. J. B. Galloway, William Woodburn Stevens, M.B., Ch.M., of Charters Towers, to Ilma Myra, daughter of David Arthur Thomas, Esq., J.P., of Randwick, N.S.W.

DEATHS.

BALLS-HEADLEY.—June 23rd, at "Redholm," Kensington-road, South Yarra, Victoria, Helen Elizabeth Mary, wife of Dr. Balls-Headley.

FIELDSTAD.—June 21st, suddenly, at Rotorua, N.Z., Axe Fieldstad, M.D., aged 44 years.

HINDER.—June 22nd, 1905, at Carleton, Liverpool-road, Summer Hill, Sydney, Eric Henry Critchley, dearly loved infant son of Dr. and Mrs. Hinder, aged 5 months.

RUSSELL.—June 14th, at St. Raymond's, Unley, South Australia, Alfred Edward James Russell, M.B., Ch.B., of Ivymeade, Burnside, aged 35 years.

BOOKS RECEIVED.

A Manual of Electro-Static Modes of Application, Therapeutics Radiography, and Radiotherapy. Third edition. By Wm Benham Snow, M.D. New York: A. L. Charlton & Co. 259 William-street. 1904. Price, 12s 6d net.
Manual of Diseases of Children. By James Burnet, M.B., M.R.C.P. (Edin.). Edinburgh: Messrs. E. & S. Livingstone, 15 Teviot Place. 1905. Price, 6s 6d net.
The Rôle of Modern Dietetics in the Causation of Disease. By J. Sim Wallace, M.D., D.Sc., L.D.S. Demy 8vo. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1905. Price, 3s 6d net.
Mucous Membranes, Normal and Abnormal, including Mucin and Malignancy. By William Stuart-Low, F.R.C.S. Crown 8vo. London: Baillière, Tindall & Cox. Sydney. L. Bruck. 1905. Price, 2s 6d net.
The Surgical Treatment of Pyloric Obstruction. By Philip James, F.R.C.S. (Eng.). Reprinted from the New Zealand *Medical Journal*.
Methods of Morbid Histology and Clinical Pathology. By I. Walker Hall, M.D., and G. Herxheimer, M.D. Edinburgh and London: Wm. Green & Sons. 1905.
Manual of Midwifery for Students and Practitioners. By Henry Jellett, M.D. (Dub.), F.R.C.P.I.L.M., assisted by W. R. Dawson, M.D., F.R.C.P.I.; H. C. Drury, M.D., F.R.C.P.I.; T. G. Moorhead, M.D.; and R. J. Powlette, M.D. Demy 8vo. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1905. Price, 21s net.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS:—

Dr. M. McIntyre Sinclair, Wentworth Falls, N.S.W.; Mr. G. T. Taylor, Hobart; Dr. Litchfield, Sydney; Dr. A. Palmer, Sydney; Dr. Champion, Ballarat; Dr. G. H. Hogg, Launceston, Tasmania; Dr. N. L'Estrange, Charleville, Queensland; Dr. B. Burnett Ham, Brisbane; Dr. R. T. Michell, Blayney; Dr. C. P. B. Clubbe, Dr. R. Fairfax Reading, Macquarie-street; Dr. W. G. Armstrong, Sydney; Dr. C. H. E. Lawes, Petersham; Dr. H. Laurie, Melbourne; Dr. B. Poulton, Adelaide.

AUSTRALASIAN MEDICAL GAZETTE.

PRESIDENTIAL ADDRESS

Delivered at the annual meeting of the South Australian Branch of the British Medical Association.

By C. W. Hamilton, M.D., B.Ch. (Univ. Dub.), Adelaide, Retiring President.

It would have been much more in accordance with my inclination to have vacated this chair without inflicting upon you a formal address, but, like my predecessors, I am obliged to submit to the tyrant "custom." That the custom has its merits I will not deny, but I can assure you that, in my case, not having the pen of a ready writer, it has added a terror to the pleasures of office.

The attention of medical men, more especially those engaged in laryngology, has this year been attracted by two interesting events, viz., the centenary of Manuel Garcia, the inventor of the laryngsocope, and the jubilee of laryngology. On the 17th of March of this year Senor Manuel Garcia attained his hundredth birthday, and it was in the year 1855 that he presented to the Royal Society of London his paper demonstrating the possibility of seeing the larynx in the living subject, and describing the success of his efforts to discover a method of making the action of the vocal apparatus visible.

In the house of the Laryngological Society in London the inventor of the larnygoscope on his hundredth birthday received addresses from his old pupils, from musical bodies, and from various laryngological societies, and was presented with his portrait, which had been universally subscribed to. Thus representatives of music and medicine from all quarters of the globe joined in paying homage to a man who had enriched the art of healing with an instrument of the highest practical value.

Although many before him had worked at the problem, Garcia was the true discoverer of the laryngoscope, the invention which has brought diseases of the larynx within the reach of medical science, has created a complete speciality, and given help and healing to countless thousands. In the middle of the last century he was teaching singing in Paris, and doubtless, like many others before him, was most anxious to study the action of the larynx during the act of singing. How his wish became realised is best described in his own words:—"One September day in 1854 I was strolling in the Palais Royal, pre-occupied with the ever-recurring wish, so often repressed as unrealisable, when suddenly I saw the two mirrors of the laryngoscope in their respective positions as if actually present before my eyes. I went straight to Charrière, the surgical instrument maker, and, asking if he happened to possess a small mirror with a long handle, was informed that he had a little dentist's mirror. Having obtained also a hand-mirror I returned home at once, anxious to begin my experiments. I placed against the uvula the little mirror (which I had heated in warm water and carefully dried); then, flashing upon its surface with the hand-mirror a ray of sunlight, I saw at once, to my great joy, the glottis wide open before me. When my excitement had somewhat subsided, I began to examine what was passing before my eyes. The manner in which the glottis silently opened and shut, and moved in the act of phonation, filled me with wonder."

In the following year Garcia presented a paper to the Royal Society of London, entitled "Physiological Observations on the Human Voice." Laryngology therefore dates from the year 1855, and the inventor has had the satisfaction of living to see the jubilee of his discovery. For years the laryngoscope was scoffed at as "a physiological toy," and was treated with apathy and even with incredulity. Had it not been for the zeal of the distinguished physiologist, Czermak, of Buda-Pesth, who was quick to see what was wanting to complete an invention which he recognised at once as being of the greatest promise, Garcia's discovery would have perished of neglect. Czermak substituted artificial light for the uncertain rays of the sun, the light was reflected and concentrated by a large opthalmoscopic mirror, laryngeal mirrors were constructed of different sizes, and, finally, the art of medical laryngoscopy was perfected and presented to the world in an article in one of the German journals in March, 1858, and gradually came to be recognised as an important and legitimate branch of medical science.

When speaking of Garcia's invention, the intimate relationship and inter-dependence of the various parts of the throat and nose suggest the notice of a discovery of about the same time and of equal importance. Czermak was the first to demonstrate the use of posterior rhinoscopy. In 1853 he detected with the mirror "growths like a cock's comb" in the post-nasal space, which, five years later, were fully discovered by Meyer of Copenhagen, and described as adenoid vegetations, a discovery far-reaching in its effects on the public health, and one which has immortalised the name of Meyer. It has been well said that he added to human strength, he contributed to human comfort, he opened the ears of the deaf, and made man more beautiful in form and feature; he toned and tuned that marvellous instrument, the human voice, and shut the very doors of insane asylums upon the frail and wretched. By men such as Garcia and Meyer life is made stronger and longer.

This is pre-eminently an age of specialism. This tendency to specialise is due to natural progress and human limitations in all fields of study. When we consider the rapid strides made in all branches of medical and surgical science within the last fifty years—probably greater progress than has taken place in any corresponding period in the history of medicine—and when we call to mind what Hippocrates said over 2000 years ago, "Art is long and life is short," which, if true then, applies with greater force to our own time, I think that we must admit the necessity of specialism in medicine, whereby one is able to grasp and treat in an exhaustive manner any particular branch in all its varied bearings, with benefit to the public at large as well as to our profession.

Gradually one speciality has developed after another, all taking their part in the advancement of medical and surgical knowledge, and this has been achieved by careful and accurate observation, a faculty for which the practice of our profession forms an excellent school. While we acknowledge the necessity of specialism, we must recognise the danger of over-specialisation by which we are liable to get into a groove, become narrow-minded, and ignore general principles. This danger was foreseen twenty years ago by Professor Virchow, who, when giving an address at the jubilee meeting of the Berlin Medical Society in 1885, spoke these words: "Amongst us has arisen the large army of specialists, and it would be useless, or at any rate fruitless, to oppose this development; but I think I ought to say here, and I hope to be sure of the consent of you all when I say it, that no speciality can flourish which separates itself completely from the general body of science; that no speciality can develop usefully and beneficially if it does not ever and ever again drink from the general fount, and if it does not remain in relationship with other specialities, so that we all help one another, and thereby preserve for science at any rate, even if it should not be necessary for practice, that unity on which our position rests intrinsically, and I may say also with regard to the outer world."

It is evident to all that every speciality is inseparable from general medicine. Natural taste or aptitude will, of course, incline a man towards one or other of the great branches of medical science, but none of them can stand alone, and their usefulness is found in their combination. The true specialist is one having broad and comprehensive views of general medicine and surgery, and the true healer should know the whole of his art, so as to be able to bring all its resources to bear on any particular case. We must not be what Sir Felix Semon calls "localists." Take the specialities of opthalmology, laryngology, rhinology, and otology. They are dependent upon general medicine, which, in its turn, is indebted to them, while they are closely connected with one another. The eye is not only *in* but *of* the body, and its diseases often possess important significance in relation to the diagnosis and correct understanding of diseases of other organs. The local disease may depend upon and be the signal of a lesion of some remote organ, or of a constitutional affection. The writer of a paper on "Some Ocular and Nervous Affections in Diabetes and Allied Conditions" concludes with these words:—"It seems to me that the best and most hopeful feature of opthalmology is, that it has relations, closer or more remote, with every branch of medicine and surgery—indeed, with almost every branch of science." We know that it is by the study of eye diseases that a thorough investigation of very many morbid affections of the nervous system can be methodically carried out. It is by the opthalmoscope that we often get the best evidence, and, in some cases, the only decisive evidence of gross organic disease of the brain. Then, again, Bright's disease is often first found by an ophthalmoscopic examination discovering albuminuric retinitis, which is an early and characteristic symptom of the condition. Headaches and other nervous symptoms are often due to errors of refraction, and can be relieved by the wearing of spectacles without the aid of drugs. I might multiply instances such as the relation between syphilis and the various diseases of the eye; acute inflammatory affections of the anterior part of the eye being common in the early stages, while chronic affections of the posterior part are distinctive of the later stages of the disease. Again, diabetes is often associated with cataract. The importance of general therapeutics in the management of eye disease is manifest. Take as an example the necessity of general treatment in the case of that common disease, corneal ulcer, occurring, as it often does, in unhealthy individuals. It is known that the healthy body is capable of producing substances antagonistic to micro-organisms, and that the unhealthy body aided in the formation of substances which increased the ill-effects of these micro-organisms. General treatment must therefore be a part of the treatment of such cases, supplemented by local measures. The symptoms of ametropia in children, especially, are often relieved if measures are taken to strengthen all the muscles by outdoor life, exercise, and attention to the general health. Rheumatism is a frequent cause of iritis, and a contributory factor in producing other ocular diseases, therefore the diathesis must be treated as well as the local affection. These instances go to prove the connection of opthalmology with general medicine and its indebtedness thereto.

In the throat, nose and ear, whilst there are numerous diseases of these organs strictly limited to them, there are also others, only a part of some general disease, requiring not so much local as constitutional treatment. The recognition of the relationship between diseases of the nose and throat and general diseases, such as anæmia, disturbance of the circulation, nervous irritability, gout, rheumatism, etc., is essential to the proper management of either class. One finds from experience that rheumatism or gout may be the underlying factor in many catarrhal conditions of the nose and throat. Again, an adult with persistent or frequently occurring nasal obstruction may be cured by attention to the liver and kidneys, with a view to relieving the blood of some of its retained waste. In fact, almost every constitutional disease may have some manifestation in the nose or throat, and the diagnosis should be determined only after a thorough consideration of the case as a whole. On the other hand, the discovery of actual lesions in the larynx often enables us at an early period to diagnose important general disease, especially affections of the brain and chest. Paralysis of one vocal cord may be one of the earliest signs of locomotor ataxy, or be a guide to the situation of a growth in the brain. Or again, it may be the means of discovery of an aneurism of the aorta or other thoracic tumour, or a consolidation of the apex of the right lung. By the use of the laryngoscope we can often discover at an early stage laryngeal complications of pulmonary tuberculosis. Asthma is in certain cases a neurosis of nasal origin. The frequency of the relationship has been much overrated by some rhinologists, but underrated or too often ignored by writers on medicine. While it is clear that asthma depends often upon pulmonary lesions and cardiac or renal, and in no way connected with the nose, it is equally clear that there are instances of typical asthmatic attacks which result from nasal affections and are permanently cured by their removal. Perhaps the most frequent are nasal polypi. In other cases the cause is suppurative disease, sometimes of the maxillary antrum, more often of the ethmoid cells. Often it is dependent upon spurs on the nasal septum. Rheumatism and gout may be detected by tenderness over the thyro-hyoid ligament, by patchy congestion of the upper respiratory tract, by aural exostosis or injection of the manubrial plexus, while cerebral abscess is frequently due to disease of the middle ear and mastoid. I take these instances to show how very intimately diseases of the throat, nose and ear are connected with general medicine, and justify the words of Virchow already quoted.

At the Intercolonial Medical Congress held in Brisbane in 1899, Dr. Ferguson, of Dunedin, introduced a discussion on "Eyesight in School Children," and a committee was appointed to consider the question and report to a subsequent congress. So far as I can ascertain nothing was done at the last congress, but it is to be hoped that the matter may again be brought forward at the coming one.

The subject of eyesight in connection with education is one of grave importance. In these days of many examinations and keen competition, and when the lust for "getting on" is prevalent, there is danger of an undue strain being put upon the brain and the nervous system of the growing child. Not only the eye, but the brain, has to be educated while both are undergoing the process of development. I think I am right in saying that though teachers may know of the physiology of the eye, its structure and mechanism, they do not always sufficiently realise the injurious effects of badly lighted schoolrooms, badly constructed desks, and long hours of study on the eyes of the children. While sympathising with the natural and praiseworthy desire of the teacher to advance his pupils, one is afraid that success is often obtained by cramming, and that no consideration is given to the possible ill effects on the constitution of the child. It is a well-known fact that knowledge gained by cramming is not lasting. One of the speakers in the discussion initiated by Dr. Ferguson, to which I have already referred, remarked that a friend of his had wittily described this system of cramming boys and girls as a process of "cerebral vomiting." Knowledge so ingested is invariably got rid of as effectually as if it had never been acquired. Well were it for the child if the injurious effects of this high pressure on the system could be got rid of as easily.

At the International Congress of School Hygiene held during last year at Nüremberg, the proposition was laid down that "myopia might fairly be regarded as a widespread disease of children, produced by school life."

At birth hypermetropia is the rule, and emmetropia follows with subsequent growth. The fact that myopia scarcely ever exists before the age of five, and that statistics taken in elementary schools by Priestley, Smith and others, prove that from that age onwards the number of children who suffer from it steadily increases, goes to show that school conditions are at fault.

Improper and excessive use of the eyes causes a congestion of the retina and choroid, a low grade of inflammation of the ocular tunics supervening, most marked at the posterior pole of the eye—the inflammatory theory of myopia. There can be no doubt that this congestion is frequently induced by the child's being compelled to work under bad conditions, such as poor light, improper ventilation, and imperfect posture, especially if associated with hereditary disposition.

Happily the proportion of children suffering from myopia in this State is not very great, still the pressure of over-study in producing eye strain and eye disease is a danger which we must recognise. Any real study before the age of seven is unnecessary and injurious. When at school the child has not only to see the object, but also to take in what it means, and the younger the child the greater the strain.

The amount of "home-work" should be limited, as this often involves hours of study, which time should be devoted to building up tissues by sleep. Every teacher should be impressed with the importance of having an ample and proper supply of light in the schoolroom; the child ought not to face the light, which should come, if possible, from the left. Desks should be sloping and of a sufficient height to prevent stooping. Books should be of good clear type, and the book or work should never be brought close to the eyes. There ought to be a distance of at least ten or twelve inches between the eyes and the work. Attention paid to simple rules such as these would do much to minimise the danger of injury to the eyesight of school children. All educational authorities and teachers should give the gravest thought to this matter, as, although much has been done of late years to better school conditions, there is still room for improvement.

During the last year medical science has sustained a distinct loss by the death of Professor Finsen. His life will ever remain as one of the noblest examples in our profession of perseverance and devotion to duty, under the most trying circumstances of health. Few men have lived a life of more disinterested zeal than Finsen. Although during his professional career he suffered from ill-health—for the last three years being practically confined to bed—he worked steadfastly to the end at the development of a treatment, which has, no doubt, already brought relief to a large number of sufferers. Whether Professor Finsen's work will be such a valuable addition to our therapeutic resources as was at first thought likely, or whether it will be superseded by something better—as is possible in the advance of scientific research—his name will always be remembered as that of one who gave his whole life to the service of mankind without hope of reward.

Turning to our own branch, we have had very recently to mourn the loss of one of our members. I refer to Dr. A. E. Russell, who was cut down in the prime of life with no doubt a successful career before him. Held in the highest esteem by all who came in contact with him, his early death is deeply to be regretted.

Our thoughts are now naturally turning to the Intercolonial Medical Congress, which once more meets in Adelaide, its birthplace. I feel sure that we shall one and all strive to make it, in every sense of the word, a success, both professionally and socially. The fact that the leadership is in such able hands as those of the President-elect inspires us with every confidence.

The South Australian Branch, acting on a suggestion made by Dr. Poulton, had the honour of inaugurating, eighteen years ago, these triennial meetings. There were, no doubt, misgivings as to how it would succeed when the first congress was proposed, but the great success which did attend both it and subsequent meetings in other centres has proved the wisdom and utility of holding these medical conferences, and it must be gratifying to Dr. Poulton to see the satisfactory results of his suggestion.

Gentlemen, before vacating this chair, I wish to thank you for having done me the honour of electing me your President, and for your cordial support during my term of office. My best thanks are due to the Council for their assistance, and especially to Dr. Gunson, who, by his unvarying courtesy and attention, has made the duties of my position both light and pleasant.

The work done by our Branch during the past year will compare favourably with that of any in Australia. We have had able and interesting discussions, and the meetings have been well attended. For the healthy and vigorous existence of a society like this. the co-operation of every member is needed. and it is incumbent upon us all to contribute what we can to the advancement of medical knowledge. The late Sir Morell Mackenzie spoke of this duty in an address delivered as President of the British Laryngological Association. "Those," he said, "who are content perseveringly to interrogate nature in her everyday dress will, I am persuaded, be fully compensated for such courageous humility. Work steadfastly, then, whether the subject be recondite or apparently trivial. Observe and test everything, and bring your results here to be criticised by your fellow-workers."

In conclusion, let me thank you for your patient attention to my somewhat disjointed remarks. It is now my pleasing duty to introduce my successor, Dr. Lendon, who for the second time takes the office of President. Though it is said that "prophecy is the most gratuitous form of error," I may safely venture to prophesy that under his able and skilful guidance our Branch will flourish.

SOME POINTS IN THE TREATMENT OF CHRONIC NERVE DISEASE.

By George E. Rennie, M.D., M.R.C.P. (Lond.), Assistant Physician Royal Prince Alfred Hospital, Sydney, and Tutor in Medicine, University of Sydney.

Two points in the title of this paper require some explanation. First, when I speak of "treatment," I do not, of course, mean "cure," but the use of various therapeutic methods which are of assistance in either alleviating pain or disabilities of various kinds; and, secondly, when I speak of "chronic nerve disease," I wish to confine my remarks to that group of chronic diseases of the nervous system which have as their pathological basis a degeneration of nerve or muscle fibre. I have been led to introduce this subject because of the apparently hopeless view which the majority of general practitioners seem to take of the possibilities of treatment of these conditions, and because of the misconception which appears to exist as to the therapeutic indications and possibilities of the use of iodide of potassium and mercury.

Speaking broadly, we may say that degeneration of nerve fibres arises either as a consequence of their separation from their trophic centres, or in consequence of the action upon them of some toxic substance, whether of inorganic or bacterial origin. Degeneration of muscle results either from a primary failure of vitality—from "abiotrophy," to use Sir William Gower's expression—or as a result of its being separated from its trophic centre either by atrophy of the anterior cornual cells in the spinal cord or of its motor nerves. We have to bear in mind that nerve tissue that has been once destroyed cannot be regenerated; that the lesion remains a permanent one, and our efforts in the direction of treatment must be to strengthen what remains, and to endeavour by various therapeutic measures to counteract the ill effects which have ensued as a result of the lesion. For example, cerebral hæmorrhage may give rise to hemiplegia, the amount and distribution of the resulting paralysis varying of course with the situation and extent of the lesion in the brain. The hæmorrhage will necessarily cause the destruction of a certain amount of nervous tissue, and if the patient survive for some years, we should find on post-mortem examination that the site of the hæmorrhage was represented by a cicatricial pigmented area. While we cannot in such a case definitely treat the lesion in the brain, we can do in some cases at any rate a good deal to improve the condition of the paralysed limbs. While we cannot restore nerve cells and nerve fibres which have been destroyed as a result of traumatism or disease, we may by careful treatment prevent the disease from extending, and may be able to strengthen the remaining healthy nerve tissue, and probably open new paths of communication between nerve cells and nerve fibres, the ordinary connections of which have been interfered with by disease.

Before we can enter on the rational treatment of any case we must have some conception first of all of the pathological conditions which underlie the symptoms presented by the patient; secondly, of what we want to accomplish by our remedies; and thirdly, of what we can do by our therapeutic measures.

First, as to the pathological conditions present. All forms of chronic degenerative nerve disease may be classified roughly as syphilitic, parasyphilitic and non-syphilitic. In syphilitic diseases we have definite syphilitic lesions—that is, gummata or gummatous meningitis, or syphilitic periarteritis and endarteritis. These conditions are mostly tertiary manifestations, but in some cases they occur early within the first two years after infection. In this group we have cases presenting clinically the symptoms of tumour of the brain or spinal cord, chronic meningitis with cranial nerve palsies, and hemiplegia, monoplegia or paraplegia, due to the arterial disease, with secondary thrombosis and necrosis of nerve tissue. In the second group of parasyphilitic diseases we have some degenerative lesions of the central nervous system, which are most probably in the majority of cases due to syphilitic toxines, which do not present the gross morbid anatomy characteristic of syphilitic disease, but which are characterised by microscopical changes in nerve fibres and nerve cells, obviously the result of a toxic process. We really know very little of the pathology of syphilis, and the toxine which is supposed to give rise to the parasyphilitic diseases of the nervous system has never been isolated. We can only infer, therefore, from analogy that some toxine does cause the degeneration of nerve cells and fibres in this class of diseases. Note specially then that in the parasyphilitic diseases we have degeneration and atrophy of the nerve cells and fibres in the central and peripheral nerve systems. The third group comprises morbid conditions which are not due to any syphilitic process, but which are variously ascribed to the action of exposure to cold and damp, to poisons and toxines of various kinds. In the majority of cases of this nature we find primary atrophy or breaking up of the myelin sheath of the nerve fibres, and subsequent atrophy of the nerve cylinders, a primary atrophy of the nerve cells, these cells losing their processes, the nuclei being extruded and the cell body gradually disappearing; or the muscles may be primarily affected, the muscle fibres losing their striation and being replaced by fibrous tissue. But in addition to the actual degenerated nerve cell fibres and muscles, there are some of the structures which are only slightly damaged by the morbid process—some whose function is merely perverted, increased from irritation and over-stimulation, in abeyance from impairment of nutrition or loss of association. We have thus before us the picture of the various pathological conditions we are called on to treat—either gross syphilitic lesions, degenerated nerve cells, fibres and muscles, and nerve cells and fibres which are in an unstable condition, but which are tending towards degeneration and atrophy.

Our second question is—"What effect do we wish to accomplish by our therapeutic measures?" The answer to this question is based upon our preliminary pathological considerations. In the case of syphilitic lesions our object must be to cause absorption of gummata, of the specific inflammatory material in gummatous meningitis, of the small-celled infiltration in the walls of the arteries causing the endarteritis, and so remove the tendency to thrombosis and consequent disturbance of nutrition of the nervous structures. As we cannot restore nerve cells and fibres and muscles which are degenerated and destroyed, we must recognise that where such process has taken place a permanent scar remains in the nervous system, and our object must be therefore to prevent the advance of the toxic process, to shepherd the remaining structures, to restore their nutrition and vitality, and so to counteract as far as possible the damage which has been done and which cannot be actully repaired.

The third question, and perhaps the most important of all, and one which demands our careful consideration, is—"What can we accomplish by the various therapeutic measures at our disposal?" Sir W. Gowers some years ago rather startled the medical world by announcing that syphilis is an incurable disease. But the more experience we gain in the treatment of the protean manifestations of this disease, the more we are disposed to agree with this statement, notwithstanding the many apparent exceptions that may be cited. It is of the greatest importance to recognise that because a patient is suffering from some nervous disease which may be a manifestation of, or a sequel to, syphilis that the disease is not necessarily curable by the administration of iodide of potassium and mercury. In the group of cases of chronic nerve disease due to gross syphilitic lesions affecting the brain or spinal cord or peripheral nerves—that is, where there are gummata or gummatous meningitis or specific perienteritis or endarteritis, it is possible in the large majority of cases in the early stages by the judicious use of antisyphilitic remedies to remove these gross lesions. We can cause absorption of a gumma and so remove pressure from the brain or spinal cord or nerve trunks; we can cause a certain degree of absorption of the small celled infiltration of the arterial walls, and so help to restore the arteries to their original calibre, but there the possibilities of our therapeutics end. Remember that if we cause absorption of a gumma which has invaded and partially destroyed the brain or spinal cord or nerve, by the use of iodide of potassium and mercury, we cannot possibly restore the portion of nerve tissue which has been destroyed, and in the process of absorption or healing of a gumma new fibrous tissue is often formed which tends to cicatrise or cause pressure upon nerve structure, and which in its turn gives rise to definite symptoms. No amount of pushing of antisyphilitic remedies can remove these secondary symptoms, and the case, although primarily a syphilitic one, becomes incurable so far as that particular symptom or group of symptoms is concerned. Consequently, no possible good, but only harm, can accrue from a prolonged use of iodide of potassium and mercury, even in cases which are definitely syphilitic; and in the majority of cases an *efficient* dosage of these remedies for six or eight weeks will effect all that can possibly be hoped for in the way of removal of definite syphilitic lesions.

What are we to say of the effect of iodide of potassium and mercury in the treatment of the group of parasyphilitic diseases? There are some physicians who advocate the use of these antisyphilitic remedies in the treatment of tabes dorsalis and general paralysis of the insane in the early stages, but with what particular object in view is not quite clear, except on the general principle of giving these drugs in every case in which syphilis is an antecedent. So far as we know, iodide of potassium and mercury have no power of counteracting the effect of the toxines; their mode of action is quite unknown, and when we are brought face to face with a case which we can definitely diagnose as one of tabes or general paralysis as opposed to cerebro-spinal syphilis, then the time for the administration of these drugs is past, and definite harm ensues from the administration of depressant drugs to patients whose nervous systems are already in a state of depressed nutrition and vitality. Iodide of potassium and mercury cannot possibly restore the myelin sheath of degenerated nerve fibres or restore the nutrition of nerve cells which are being poisoned by toxic agents unless they act as an antitoxine, and so far as we know such is not the case. With regard to the use of these drugs in the third group of chronic nerve diseases—that is, those of definitely non-syphilitic origin—I wish to emphasise the fact that the administration of iodide of potassium and mercury as a routine treatment is irrational and injurious. It seems to be a general opinion that any patient who presents a nerve lesion, no matter what lies behind it, or what the patient's condition may be, should be dosed with iodide of potassium on the off chance of there being some syphilis somewhere. Such a line of treatment is not merely useless, but often definitely injurious, depressing the nervous system, upsetting the digestion, and interfering with the nutrition of the patient generally. No, we cannot cure these patients with iodide of potassium or mercury, or any similar drug. Each case requires careful investigation and consideration from more points of view than merely the nervous system.

To recapitulate for a moment. I have shown that in cases where a gross syphilitic lesion is present the specific remedies can be used with beneficial effect, the amount of benefit to be derived, whether cure or partial cure, depending on the extent or duration of the syphilitic process. I have shown that in other diseases of the nervous system, whether parasyphilitic or non-syphilitic, the use of these drugs cannot possibly do any good.

What other line of treatment, therefore, should be adopted in these other cases? It is necessary, first of all, to examine the patient thoroughly, and satisfy ourselves fully as to the conditions of all the organs of the body, the object of this being to enable us to adjust our treatment accordingly. The correction of stomach and intestinal troubles is of the greatest importance, as the administration of abundance of nourishment is essential to secure the best results of treatment in this class of case. The administration of occasional doses of calomel, with saline aperients, and the correction of errors of diet, will prevent the development of intestinal poisons which are absorbed into the system and tend to still further depress nervous activity. Attention should be paid to the condition of the kidneys. The presence or absence of albumen, sugar, etc., should be noted, and appropriate treatment directed towards this. Special attention should be paid to the heart and circulation, high blood pressure must be reduced, low blood pressure must be raised, the condition of the blood must be noted, and any anæmia treated with appropriate remedies, and so on. By attention to these details we can often do much in the way of relieving pain and disabilities of various kinds.

As regards the special line of treatment to be adopted, I would direct attention briefly to the following:—(1) Diet, (2) Massage, (3) Electricity, (4) Exercises, (5) Baths, (6) Drugs, (7) Nerve anastomosis.

1. Diet.—I have already referred to the fact that the correction of any stomach or intestinal derangement is of primary importance, since the administration of abundance of nutritious food is specially indicated. Milk is an ideal food and is of the greatest service; but we must remember that the administration of a large quantity of milk means the ingestion of a large quantity of water, which will tend to render the blood hydræmic, and so raise the blood pressure and possibly embarrass a weak heart and throw extra work on the kidneys. The condition of heart and kidneys, therefore, requires investigation before we order the administration of large quantities of milk. Milk, however, contains a relatively large percentage of phosphorus, and this is the element which a nervous system which is impaired in its nutrition most requires. A diet of milk foods, eggs, white meats is specially indicated in diseases of this nature.

2. Massage.—This is a method of treatment which is of great value in many of these diseases. It is of use from two points of view. First, to improve the nutrition of the patient generally, enabling a patient who is more or less crippled to digest and assimilate a larger amount of nourishment than would be otherwise possible; and, secondly, to improve the nutrition of the wasted muscles, and strengthen those which are only weak and not atrophied. It is true that this method of treatment is not of much service in cases of so-called progressive or idiopathic muscular atrophy; but in cases of infantile paralysis in which the muscular atrophy is not progressive, or in muscular wasting, secondary to peripheral neuritis, much can be done by prolonged massage in restoring the muscles which are only weakened, and so to some extent compensating for the loss of movements which results from atrophy of certain groups of the muscles.

3. Electricity.—Various forms have been and are still used in the treatment of diseases of the nervous system. The Faradic, galvanic, sinusoidal and high-frequency currents, as well as static electricity, have all been and are still used in different conditions. In many cases electrical treatment is not of much avail, except in so far as it assists our other methods of treatment in the removal of functional defects which are so commonly associated with organic disease. How it acts we do not know for certain; but it is possible that the passage of electrical currents acts as a healthy stimulus, and so tends to maintain or even improve the nutrition of nerve cell and fibre. In the group of cases of progressive muscular atrophies, electricity does not appear to produce much permanent effect in checking the progress of the disease; but in cases of muscular atrophy due to peripheral neuritis or acute anterior poliomyelitis, in which the lesion is stationary, the use of the Faradic or galvanic currents is a

valuable adjunct to massage. In cases of this nature that particular kind and strength of current should be employed to which the muscles most actively respond. By these means the nutrition of the paralysed muscles is maintained pending the restoration of the power of conduction of nerve impulses along the diseased nerve fibres.

4. Exercises.—One of the prominent symptoms in cases of chronic nerve disease is a loss of voluntary control over muscular movements. We see this in the intention tremor of disseminated sclerosis, in the ataxy of tabes, in the tremor of paralysis agitans, and in the paralysis and rigidity of the limbs in cases of hemiplegia, and the various forms of ataxic paraplegia. By passive movements and exercises much can be done to alleviate the distress and disability arising from these symptoms. In a tabetic who can scarcely stand or walk, not so much from loss of muscular power as from loss of voluntary control and muscular hypotonia, the muscles can be re-educated to a certain extent so that the patient recovers sufficient voluntary control as to enable him to walk with a fair degree of freedom. By repeated training in the performance of special movements, the patient who is suffering from disseminated sclerosis can be taught to use his limbs with more freedom and greater accuracy. We cannot, of course, cure these symptoms, but by these means it is probable that new paths can be opened up in the central nervous system whereby the various impulses necessary for the performance and co-ordination of muscular movements can be conveyed to the various groups of muscles.

5. Baths.—Various kinds of medicated baths appear to be of some service, possibly by producing cutaneous stimulation, and so reflexly improving the nutrition of the central nervous system. At any rate, whatever the exact *modus operandi* may be, there is no doubt that warm sulphur and brine baths do assist in relieving nerve pains and making the patient feel more comfortable.

6. Drugs.—I have already referred to the use of the specific remedies, iodide of potassium and mercury. A large number of drugs are credited with being nerve tonics, though in what particular way they act we do not know. Some, such as strychnine, are stimulants to the nervous system; others are more tonic in their action and seem to assist either by removing the products of metabolism or in preventing excessive waste of nerve tissue. To this class belong arsenic and the various phosphorus compounds. Others, again, are sedative in their actions, and apparently depress the functional activity of nerve cells. To this class belong opium and its derivatives, the bromides and hyoscine.

7. Nerve Anastomosis.—This is one of the newest advances in the treatment of some forms of this class of disease, and judging by the progress already made in this direction, it seems probable that beneficial results will be obtained, not only in cases of disease of the peripheral nerves, but also in cases of acute anterior poliomyelitis and in some special cases of hemiplegia resulting from brain disease.

It is quite beyond the scope of this paper to even outline the special treatment which may be adopted in any particular case of chronic nerve disease. I have only endeavoured to outline the various therapeutic measures we have at our disposal which may be used for the alleviation of symptoms presented by patients suffering from chronic nerve disease; and my object will have been attained if I have succeeded in giving you some suggestions for rational treatment of this unfortunate class of patients.

(Read before the New South Wales Branch of the British Medical Association.)

TWO CASES OF BRAIN DISEASE.

By A. V. M. Anderson, M.D., Hon. Physician to the Alfred Hospital, Melbourne, St Kilda, Vic.

The two cases that I wish to bring under your notice to-night are interesting mainly from the diagnostic point of view, and are worthy of being recorded, as showing the difficulties that are often met with in cerebral cases in coming to an exact conclusion as to the site or the nature of a lesion. For the notes of the first I am indebted to Dr. McKeddie.

R.P., *æt.* 54, single, labourer, was admitted to the Alfred Hospital on September 19th, 1904, complaining of loss of vision. He said that his sight had been failing for months, but in the last fortnight had gone altogether, and he could now only see the movements of fingers close to his face. He had worked till a fortnight before admission, but had felt dizzy for several weeks previously. He had occasionally staggered a good deal, so much so that people thought he had been drinking. His staggering was no worse in the dark, or when he covered his face, as in washing. He had had difficulty in retaining fæces, whereas his water used, as he expressed it, " to hang back." He had had syphilis six years ago; otherwise his health had been good. Urine 1030, acid, non-albuminous; heart and lungs normal. On walking he had a slightly jerky gait. Romberg's sign was present. His hearing was poor; this he said had recently come on. He could see fingers a foot away, and distant objects, as the ceiling, dimly.

Patient showed marked increase of knee-jerks, an appreciable ankle clonus, and Babinski's plantar reflex. The cremasteric and abdominal superficial reflexes were very sluggish. His condition was regarded as being due to syphilis, and probably cerebellar gumma; and antisyphilitic treatment was employed—mercurial inunction and the internal administration of iodide of potash.

On October 3rd a note was made to the effect that Justus' test (*i.e.*, the diminution in the hæmoglobin percentage on the inunction of mercury) was negative, and that the atrophy of both discs was increasing. Lumbar puncture was employed, with a view to relieve intracranial pressure, but only 2 drs. of fluid were obtained. This fluid, on microscopical examination, showed marked lymphocytosis.

On October 10th, vision of the left eye was $\frac{6}{60}$; in the right, only light perception. There was contact hearing with the watch on each side; decidedly more marked naso-oral fold on the left side than the right.

Dr. Gault examined the eyes, and reported as follows:—" The discs are swollen 2 or 3 D, becoming pale; physiological cups filled up; edges blurred; arteries much reduced in size. In the left eye remains of hæmorrhage near the disc, downwards and outwards. There is optic neuritis passing on to atrophy. Apparently Argyll-Robertson pupil, probably due to impaired light sensation from neuritis, and not a true Argyll-Robertson phenomenon. Some divergence of optic axes. I should advise trephining to relieve further pressure and prevent complete atrophy."

Patient was trephined over the parietal region on October 11th. On the removal of the disc of bone there was considerable bulging. A fine needle was put in and four ounces of clear fluid withdrawn. This was examined by Dr. McKeddie at once, and was found to give the reactions of cerebro-spinal fluid; it contained a trace of albumen, and reduced Lehling's solution. It was considered inadvisable to explore further, and so the wound was closed. Patient did not improve after the operation, and died comatose four days later.

A post-mortem examination was made by Dr. Brett, the head only being examined. On inspection there was no evidence of tumour presenting outwardly. The base of the brain did not show any meningitic appearance; the vessels were pliant, and not abnormally thickened, and there was no exudate. About the foramen of Majendie, however, there was the appearance of some plastic inflammatory process, tending to bind down the parts there and occlude the foramen. The ventricles were enormously dilated, and on section the posterior cornua of the right lateral ventricle approached to within 5 or 6 m.m. of the cortical surface. No hæmorrhage, minute or otherwise, could be detected in either cerebrum or cerebellum; the tracks of the hypodermic needle used in the operation were plainly visible as dark streaks here and there. No thickening of dura or pia mater, the latter stripping off readily; no thickening of calvarium. The condition, therefore, was one of acute internal hydrocephalus, due to blocking of the foramen of Majendie, as the result probably of a syphilitic basal meningitis. Internal hydrocephalus, though common in children, is rare in adults. It was evident in this case that there was extreme intracranial pressure, and the only localising symptoms were the slight fæcal palsy, the giddiness and staggering, and the diminution in hearing power. These were quite consistent with the existence of a cerebellar lesion, such as a tumour, and it is in the diagnosis of these lesions from increased intraventricular pressure that difficulty is likely to arise. If a tumour were present, it was apparently a rapidly-growing one; and of the symptoms of tumour severe headache and cerebral vomiting were absent. Symptoms due to gumma might be expected to yield to antisyphilitic treatment, but here they did not. Again, the small amount of fluid obtained by lumbar puncture, from a case where the intracranial pressure was so great, might have given a clue to the exact condition of affairs. The presence of lymphocytes in the fluid obtained from the spinal canal is also of much interest. Normally, of course, these are absent from the fluid obtained from spinal puncture; and it has been shown by several observers (Widal, Babinski, Dana, etc.) that lymphocytes are present in such pathological conditions as tabes dorsalis, meningeal tuberculosis, syphilitic meningo-myelitis, and general paralysis of the insane. Of these, the history and symptoms in this case pointed rather to a meningitis of syphilitic origin, and the case is interesting as showing (if this theory be correct) how the results of syphilitic lesion remain, as in the form of adhesions, although the lesions themselves have practically disappeared.

In regard to the possibilities of recovery in cases of hydrocephalus, it is interesting to recall cases that have been published recently where free discharge from the nose of cerebrospinal fluid to the extent of pints in the day has relieved symptoms of intracranial pressure.

The second case is one that I saw only on two occasions, the last time when the patient was moribund.

On February 3rd of this year I was asked to see in consultation a young man who had a swelling of the left upper eyelid and the adjacent part of the forehead, and obtained the following history:—He was a healthy, athletic young man of 21, and up till a week previously had had no illness of any kind. At that date he came home from his work complaining of violent pain in the right supraorbital region. He had very little sleep that night and became delirious, and on the following morning some swelling had appeared over the right eye. His medical attendant was sent for, and found that the right eye was quite closed, apparatly from œdema, which involved both upper and lower lids. There was slight redness of the skin, but the eye and the ocular conjunctiva were healthy; the temperature was 101 degrees.

The pain, swelling, and pyrexia persisted for four days, then the swelling gradually disappeared (the pain going away sooner); but, as it did, similar severe pain came on over the left eye, and swelling appeared just as it had done over the right side. The pain on the left side had become less severe during the two days before I saw him, but the swelling had persisted. The patient had nocturnal delirium, a coated white tongue, and a tendency to constipation.

There had been no cough, no symptoms of catarrh or rheumatism, no rigor, and no signs of disease other than those mentioned.

When I saw him there was considerable swelling of the left upper eyelid, extending well up on the forehead, where it was elastic and non-fluctuant. The eye could be opened. There was no chemosis, and the vision was good. There was some reddish discolouration, but no blush, and no glandular enlargement. The right eyelid was dark in colour, but not swollen or tender. Pressure over the left supraorbital nerve gave rise to great pain. There was no sign of any nasal inflammatory trouble, nor had there been any chronic nasal discharge. The teeth were good, and there was no evidence of any disease of the maxillary antrum. The heart and lungs were normal, and the urine was of good specific gravity and free from albumen.

In discussing the probable cause and nature of the condition, the possibility of frontal sinus disease was suggested, but seemed to be negatived by the absence of any evidence of nasal or antral disease, and by the total disappearance of a similar condition on the opposite side of the forehead. It was thought probable that the condition might be either a periostitis or a neuritis, with much œdema, perhaps influenzal in nature.

I heard later on from his medical attendant that suppuration had taken place, and that an abscess had been opened in the left upper lid, and that swelling had reappeared later on in the right eyelid, and here again suppuration had taken place.

On March 10th, on returning from a holiday, I received an urgent message that the patient was dying, and on going down heard from the medical attendant the following account of the symptoms in the interval (five weeks). The discharge had gradually diminished, and had altogether ceased on the right side, though not quite on the left, and all swelling had quite disappeared. The temperature had been normal for some time. Patient's general health had been good; he had not been delirious, he was sleeping well without any sedative, and had been taking his food well. He still, however, had had occasional headache, and had vomited once or twice. He had been irritable and querulous in manner, and did not seem able to make his mind up quickly as to what he intended to do. He had, however, been able to take drives, had been out in the garden daily, and had taken his morning bath regularly for some time. On the morning of March 10th he did not feel so well as usual, and remained in bed all day. At 7 p.m. he got up to use the commode, and while sitting up he became suddenly unconscious and had to be put back to bed. When seen shortly afterwards by his doctor he was unconscious, with Cheyne Stokes' respiration, slight twitchings of the face and limbs, but no general convulsions. He swallowed with difficulty. Temperature was 101° and pulse 100.

When I saw him, at 10 p.m., he was evidently moribund, there was no plantar or patellar reflex, the pupils were of moderate size and acted slightly to light. He moved both sides of the body a little; the right arm a little more than the left. Death occurred at about midnight.

No post-mortem examination was obtained, but the probable course of events was, I believe, as follows:—Although there was no distinct evidence of such a condition when first seen, suppuration had almost certainly occurred in the frontal sinus and had burst, first into the right and then into the left orbital cavity, the opening on the right side closing when perforation occurred on the opposite side, but opening again later on. Relief was afforded to syplonis for the time being, but inflammatory mischief, followed by suppuration, had extended to the frontal part of the cranium. The irritability of the patient and the change in his manner were indicative of the presence of an abscess causing pressure on the frontal lobe of the brain. As is well known, this part of the brain is one of the silent areas, and pressure here as from tumour, abscess, etc., is frequently unattended by any of the symptoms of intracranial mischief. Ferrier (see Clifford Allbutt's System of Medicine) says that these abscesses are not infrequently latent, but that in some cases, especially if the lesion is bilateral, there may be mental symptoms of which the chief are failure of memory, hebetude, apathetic indifference or tendency to sleep, vague listlessness, and inability to concentrate attention. Motor symptoms are present only in cases where the lesion extends backwards to the Rolandic area.

In this case the facts that the temperature had become normal, that the discharge was getting gradually less, and the condition of the patient steadily improving, had disarmed suspicion. The first fatal symptoms were probably caused by a sudden intraventricular rupture. According to McEwen, rupture into the ventricles is associated with dilated pupils, livid face, humid and shallow or stertorous respirations, rise of temperature, quick pulse, muscular twitchings (possibly associated with convulsions), and tetanic seizures; and these symptoms are followed by coma and speedy death, which is said to occur in from 6 to 12 hours. Here the interval was about 5 hours. McEwen records a case where after rupture into the lateral ventricle operation was performed on the comatose patient and the abscess drained, with the result that the patient completely recovered. In his case the rupture was probably small and the leakage gradual. In the above case, however, the rupture was large, and the symptoms so acute that operation would have been of no avail.

(Read before the Victorian Branch of the British Medical Association.)

SOLUBLE SULPHATE OF QUININE IN OPHTHALMIC PRACTICE.

By J. Lockhart Gibson, M.D. (Edin.), M.R.C.S. (Eng.), Brisbane.

FOURTEEN years' experience of the use of bisulphate of quinine in ophthalmic practice has made me anxious to record a very favourable impression of its value, especially in two very serious affections of the eyes—purulent conjunctivitis, and hypopion keratitis. Quinine solution was adopted in the first instance by me, owing to favourable reports by others. I believe, however, that few, if any, have placed so much reliance upon it as I have, and I am satisfied that its more general employment would be of advantage. The report in the last "Transactions of the Ophthalmological Society of the United Kingdom" of a paper on gonorrhœal ophthalmia, by Dr. Adolph Bronner, induces me to send this note. Neither in the paper nor in the discussion which followed it is any mention made of quinine solutions. Another incentive is a note read by Dr. Arnold Lawson at the January, 1905, meeting of the same society on the treatment of corneal ulcers by quinine.

For the past ten years at the Brisbane Hospital for Sick Children I have treated all cases of purulent conjunctivitis, whether caused by gonococci or other cocci, with the following solution:—Bisulphate (= soluble sulphate) of quinine, 3 grains; boracic acid, 12 grains; and water, one ounce. The quinine is the essential part of the lotion, the patient to be laid on the back with no pillow, the lids to be separated, and the lotion poured freely in every three hours, night and day. No nitrate of silver has been used for these cases, because I had become dissatisfied with it.

I believe that I am correct in stating that in no case has ulceration of the cornea occurred when the eye came under treatment with a certainly clear cornea. Some eyes with corneæ already in a state of serious ulceration have had useful sight preserved. Where, indeed, ulceration has already occurred, I have formed the opinion that quinine is more likely to lead to healing than any other treatment. For babies in arms this treatment has to be carried out by the mother, and occasionally not too perfectly. Older children, when the cases are severe, are admitted for treatment. The number of young girls below 12, generally from three to eight years, brought with purulent conjunctivitis, caused by typical gonococci, and often accompanied by vaginal discharge, is distressing. It is generally impossible to trace the source of infection. My experience of purulent ophthalmia in adults, at least in its early stages, is much more limited, though very favourable.

Important confirmation of its usefulness was obtained in 1903, when an epidemic of infective conjunctivitis, with purulent discharge, attended by swelling of the lids and great pain, occurred at the Queensland Asylums for the Insane at Goodna and Ipswich. Some 721 patients were affected. The treatment, prior to my being kindly allowed by the medical superintendent (Dr. J. B. Hogg) to advise, had been cocain, with the object of relieving pain, and painting with nitrate of silver solution. During the first fortnight of the epidemic about 200 cases were treated in this way, and in 20 of them ulceration of the cornea occurred. In four of these 20 considerable opacity of the cornea resulted, with much impaired sight. I strongly advised discontinuance of all treatment but the above solution of quinine and boracic poured into the eyes every three hours, night and day. After commencement of this as routine treatment, the epidemic lasted five weeks, and 520 cases occurred. There was not a single case of ulceration of the cornea, and recovery was much more rapid than under the former treatment. Dr. Hogg informs me that in addition to the benefit obtained from the bisulphate of quinine, it was found much more simple of application to refractory patients than the treatment at first carried out. The fact that in so widespread an epidemic no eye was actually lost yields gratifying evidence of the indefatigable efforts made by Dr. Hogg and his colleagues and warders to fight it. It is a record of which any staff might well be proud. It was noted by Dr. L. E. Row, senior assistant medical officer, to whom I am indebted for the record of facts, that after the purulent discharge ceased, quinine caused further improvement only very slowly, and that sulphate of zinc solution got rapidly rid of the remaining velvety state of the lids. This is an observation which I can myself confirm. The cases were examples of severe infective conjunctivitis with purulent discharge. It was the purulent character of the secretion, and the tendency to corneal ulceration, which led me to believe that quinine would suit. In the more usual form of catarrhal conjunctivitis with muco-purulent secretion and adhesion of the lids in the mornings I have not found it nearly so helpful as sulphate of zinc. Where pus is present, however, it is almost a specific, especially with regard to safeguarding the cornea.

The not infrequent use of cocain as an addition to lotions for conjunctivitis has my strong disapproval. A drug which, if even only occasionally, denudes the cornea of parts of its epithelium, must increase the risk of its ulceration when being bathed by an infective or purulent secretion.

For hypopion keratitis I have employed bisulphate of quinine for 14 years, and it has in many cases disinfected the ulcer and caused the hypopion to clear up in a remarkable manner. Occasionally the three-hourly use of the solution, combined with atropin or duboisin, has caused within 24 hours the disappearance of a hypopion, followed by a more gradual healing of the ulcer. In only a few cases, where the hypopion was still small when coming under treatment, has quinine failed me, and more radical interference been necessary.

SOME INTERESTING SURGICAL CASES.

By H. L. Maitland, M.B., M.Ch., Hon. Surgeon, Sydney Hospital.

Whitehead Operation for Suppuration in the Knee-joint.—A male, aged 28, was admitted into Sydney Hospital with a history that 14 days previously he had, while at sea, fallen on a chisel, which had cut his right knee. The knee-joint was distended with pus, some escaping through a small punctured wound; the surrounding tissues were swollen and œdematous; and there were marked constitutional symptoms of sepsis. The pathological report was that the infection was streptococcal.

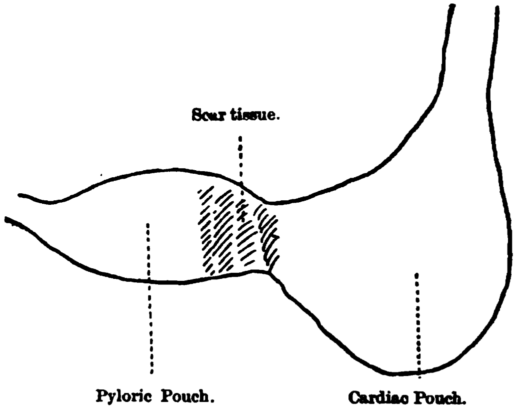
The operation as suggested by Whitehead was done. A transverse incision was made right across the front of knee-joint, leaving the tissues containing the nerves and vessels (the posterior surface) intact. The patella was sawn through, the leg was then bent to its fullest extent, thus completely opening the joint, which was then packed with gauze, which was frequently changed, and was so dressed for 13 days, when the joint surfaces became covered with granulation tissue and the acute symptoms had disappeared. The leg was then straightened and put on a back splint, the lower half of the patella being removed; the upper fragment was covered with granulation tissue and was left. The patient made a good recovery, but, of course, with a stiff leg.

Everyone is aware of the difficulty of draining the knee-joint when it is acutely suppurating. The usual custom of opening the knee-joint on either side of the patella is not sufficient. Effective drainage can be obtained by making an incision along the anterior border of the biceps with extended knee down to the capsule. Then flexing the knee, which allows the biceps to be pulled back out of the way, the ilio-tibial band is then incised and the capsule of the joint opened above or below the popliteus tendon —below the tendon preferably, because the incision opens into the pocket below the muscle, which is the lowest position in the joint cavity. But even with this incision, the joint only drains well if the joint is flexed. This posterior incision I have used in conjunction with an anterior one, but the result was not satisfactory. The cardinal rule in the treatment of septic wounds, *to well open and well drain*, is better fulfilled by adopting Whitehead's suggestions.

Hour-glass Contraction of the Stomach.—Mrs. A.—, aged 42, anæmic and emaciated, complained of progressive loss of flesh during the previous three years, vomiting, and constant epigastric pain, more marked after meals. She had been unable to take solid food, and during the last six months had suffered from constipation. Ten years previously had vomited blood on two occasions, and again six years ago.

An examination of a test meal by Dr. Corlette showed free H Cl. An exploratory laparotomy was done and revealed a well-marked hour-glass contraction of the stomach; the constriction, which only admitted two fingers, being due to scar tissue in the stomach wall, and extended from the lesser curvature on the anterior surface to half way up the posterior surface of the stomach. The cardiac pouch was about double the size of the pyloric.

A posterior anastomosis between the cardiac pouch and the jejunum was done by suture, using two layers, a through and through catgut hæmostatic layer and a serous silk Cushing suture being used. The interior of the stomach wall was examined through the gastric opening and an old healed ulcer on the anterior wall was seen. Several clippings from the stomach wall were taken, which the pathologist reported as not malignant. The patient made a rapid recovery and put on 28 lb. in weight in a few months. She still (17 months after the operation) has occasional epigastric pain after solid food, but not sufficient to cause any great inconvenience.



I do not intend to go into the etiology and symptoms of hour-glass contraction of the stomach, but just one brief word with regard to the choice of operation. This must be determined by the conditions met with in each case.

Gastro-anastomosis is contra-indicated (1) when either or both pouches are very small, (2) if scar tissue is very extensive, (3) if the anastomosis will cause a bending of the pylorus. Gastro-plasty is inapplicable in the presence of extensive cicatricial tissue. Resection of the constriction, of course, would only be considered in the simplest of cases. The objections to gastro-enterostomy is the possibility of stasis of ingesta in the pyloric pouch.

Gastro-jejunostomy was done in this case because of the extent of the cicatricial tissue and the relatively small size of the pyloric pouch.

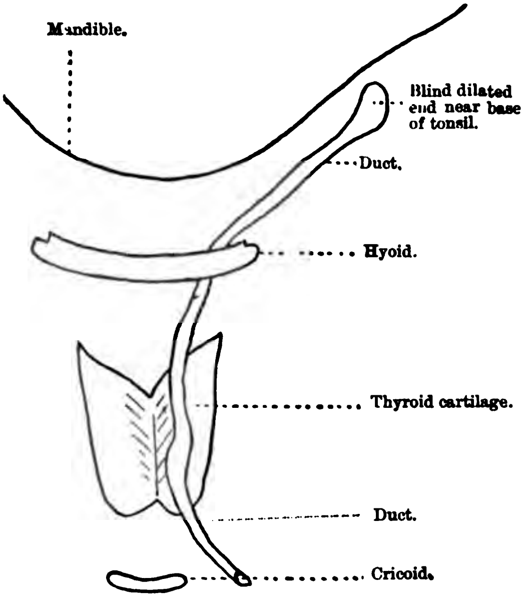
Since doing this case I have had another in which a very similar condition existed. In this case I also did a gastro-jejunostomy, using a Murphy's button, as the patient's general condition was bad. She also did very well, but did not pass the button till four months after the operation.

A Case illustrative of the Operative Method of Replacing the Head of the Bone in the Glenoid Cavity in Old Unreduced Dislocation of the Shoulder.—A male adult, aged 48, was admitted into Sydney Hospital with an unreduced subcoracoid dislocation of the right shoulder-joint. Three months previous to admission the patient had been injured at sea. Attempts at reduction had been made by the captain of the vessel. On admission the arm was practically useless, œdematous, and painful from pressure on the axillary vessels and nerve trunks. Under an anæsthetic I was unable to reduce the dislocation by careful manipulation by Kocher's method, and by traction in the long axis and at right angles to the trunk, with the scapula fixed. A curved incision was made from the coracoid process, downwards and backwards, over the insertion of the deltoid, the flap dissected up, the pectoralis major drawn inwards, and the head of the humerus exposed, the fibrous tissues around the anatomical neck divided and detached by an elevator. The glenoid cavity, which was filled with fibrous tissue, was cleared out to its normal depth, the supra- and infra- spinati attached to the greater tuberosity were partially divided (the sub-scapularis did not require dividing), the head of the bone was then replaced, the wound closed, and arm fixed. Passive movement was begun in a week, when the wound had healed, and was daily practised.

The difficulties of reducing old dislocations are known to every surgeon. They are due to—(1) Changes in the capsule of the joint; (2) the filling up of the glenoid cavity with fibrous tissue; (3) adhesion of the head of the bone in its abnormal position to surrounding structures; (4) to shortening of the infra- and supra-, spinati muscles, the teres minor, and the sub-scapularis; (5) the shape of the glenoid cavity itself, the lower and inner margin of the cavity being stronger and more prominent. This prominence is Nature's attempt to fortify the weak part of the joint, the capsule between the sub-scapularis and the long head of the triceps being unprotected. Added to these difficulties is the danger of rupturing the axillary vessels, which, from their anatomical position, may be adherent to the head of the bone.

I think that this open method of reduction of old unreduced dislocations will become more popular now that asepsis is better understood. Watson Cheyne has laid it down as a rule that it is not advisable to attempt by manipulation the reduction of a subcoracoid or subglenoid dislocation after four or five weeks have elapsed from the time of the injury, and that it is practically unjustifiable to attempt it after seven weeks. I think that in the main most surgeons will agree with this dictum. A year after the operation the patient wrote to say that he had almost perfect use of his arm, but had some difficulty in moving the arm above the level of his shoulder.

Persistent Thyro-Lingual Duct.—A male child, aged 15 months. *Previous history.*—When the child was 12 years a lump about the size of a marble appeared on the side of the neck in the situation of the sinus, which was near the anterior border of the left sterno-mastoid muscle, about half an inch below the level of the cricoid cartilage. This swelling



increased in size, and had been "opened and scraped." The wound had never closed, and had continued to discharge ever since. It had been scraped, under an anæsthetic, on three occasions.

When the child was admitted into the Sydney Hospital there was a sinus in the centre of a small ulcer in the situation I have indicated. It discharged a blood-stained, glairy fluid. Over the left wing of the thyroid cartilage was a distinct nodule about the size of a large pea. This, on pressure, disappeared almost entirely, and there was a corresponding discharge from the fistula. A probe could not be passed in. That it was a persistent thyro-lingual duct was suspected.

Under an anæsthetic I followed up the fistulous tract, and found that it extended up towards the middle line, over the thyroid cartilage, and then dipped beneath the hyoid bone, the left cornua of which I had to excise. It then extended upwards, dipping deeply beneath the muscles forming the floor of the mouth, and ended near the base of the left tonsil. The whole of the fistulous tract was excised. This was difficult, because it would only in parts admit a filiform bougie, and was situated deeply in the neck, and necessitated an extensive dissection. The wound healed with no recurrence of the fistula.

The formation of these rare fistula are, we know, easily explainable on embryological grounds. The first cleft between the first and second branchial arches forms the auditory canal, and, therefore, can never form a branchial cleft. The second cleft, between the second and third branchial arches, has its inner opening in the region of the tonsil, and it was a persistence of this cleft that formed the fistula. This second cleft, or thyrolingual duct, may also give rise to congenital cysts.

The only treatment to adopt in such a case as I record is complete excision of the fistulous tract, as was done in this case.

Three Unusual Cases of Appendicitis.—Every surgeon is familiar with the fact that the appendix may be met with in any position in the abdominal cavity, from the liver to the pelvic floor, and that these abnormal positions are due to two causes, viz.: (1) an abnormally long meso-appendix, (2) an arrest in the fœtal development. In the first and second cases I record, in which the appendix was attached to the gall-bladder and to the kidney, there was incomplete descent of the cæcum. The appendix attached to the gall-bladder also had a long meso-appendix; that attached to the kidney was retro-colonic, and, as is frequently the case when found in such a situation, had no mesentery. In the third case the abnormal position was due to an abnormally long meso-appendix. When one considers that an appendix found in the positions I mention under normal conditions is uncommon, and when one takes into further consideration that only a percentage of such appendices become diseased, the comparative rarity of the three cases I record will be appreciated.

CASE 1.—*Appendicitis Simulating Blockage of Common Duct by Gallstones.*—A female, aged 27, had three attacks of pain over region of gall-bladder during the previous year. When first seen the patient complained of acute and very severe pain over the region of the gall-bladder. She was jaundiced, high temperature, rigors, and a mass could be felt in the region of the gall-bladder. A diagnosis of acute suppurative cholangitis was made, and immediate operation decided upon. Upon opening the abdomen, the trouble was found to be due to an extremely long appendix, which was attached to a distended gall-bladder by the tip, which had ruptured and formed an abscess. The appendix was removed, and the gall-bladder opened and drained. The gall-bladder had become infected by extension, the inflammatory process extending to the common duct, through the gall-bladder and cystic duct, and blocking the common duct. The gall-bladder was distended with muco-pus. The recovery was uneventful but protracted.

The clinical history presented by this case is that of one of gallstones with secondary infective cholangitis, and it was impossible to arrive at a correct diagnosis from the symptoms.

CASE 2.—*Appendicitis Simulating Renal Calculus.*—A female, aged 27, was admitted into Sydney Hospital with the following history. She complained of pain in the right side, which came on suddenly six days previously. The pain was severe. She had vomited at the time. She passed, per urethram, almost pure blood about ten hours after the advent of the pain. Had never passed blood before, but had had two similar attacks of pain—one about three months, and another seven months before the present attack.

On admission she had marked tenderness over the lower pole of the right kidney and in front. The urine contained a macroscopic amount of blood. There was no temperature. An X-ray picture gave a negative result. On cutting down on the right kidney a retro-colic appendix acutely inflamed was found in a mass of inflammatory material attached to the lower pole of the right kidney. The loin incision had to be enlarged forwards and the peritoneal cavity opened before the appendix could be removed. The ureter was involved in the mass, and was carefully freed on its outer aspect. The patient made an uninterrupted recovery.

The history of this case is a typical one of renal calculus. The pain, its situation, its onset, its character, resemble that of renal calculus. The hæmaturia, due no doubt to the extension of the inflammation from the appendix to the kidney, accentuated the likeness to that of renal calculus.

CASE 3.—*Appendicitis Simulating Strangulated Hernia.*—The following case was sent to Sydney Hospital as a case of strangulated hernia.

The patient gave the following history:—He always had had a rupture on the right side, but had never worn a truss for any length of time, as it gave him too much pain. On lying down it would partially go back, but would never disappear. Three days ago he was seized with a sudden and acute pain in the hernia, which had gradually become worse. He began to vomit on the second day after being taken ill.

On admission the large tense hernia was seen. Attempts at reduction had been made previous to admission; therefore immediate operation was decided upon. On opening the sac it was found to contain small intestine, which was nipped but was easily reduced, a large quantity of adherent omentum, and at the bottom of the sac was a conical or fœtal type of cæcum, with an appendix coming off from the small end of the cone. The appendix was acutely inflamed and adherent to the bottom of the sac, and wrapped round with omentum, and contained a large grape seed, blocking its lumen. The appendix was removed and Bassini's radical cure done. The wound healed by first intention.

Only once before have I seen a foreign body —a shot—in an appendix, and in that case also the cæcum was of the conical and fœtal type. The liability of a foreign body finding a resting place in an appendix when such a type of cæcum exists is easily understood. The similarity of this case to that of strangulated hernia is evident.

(Read before the New South Wales Branch of the British Medical Association.)

SOME PRACTICAL OBSERVATIONS ON THE MANAGEMENT OF THE DISEASES OF INFANCY.

By A. Jefferis Turner, M.D. (Lond.), Brisbane.

THERE is nothing original in what I propose to lay before you to-night. Probably most of it is familiar to most of you; yet it may be worth while to discuss certain methods of treatment of everyday conditions, which are important from their very commonness and familiarity. Our president has suggested that papers on the routine of practice, giving each one's favourite "tips," might be useful; and I agree with him, partly for a reason which he has not suggested. One's routine practice may not be the best, simply for the reason that it is routine, and may be based largely on habit or prejudice, and may therefore be improved by being dragged forward into the light of criticism.

INFANT FEEDING.

I propose to discuss this from the point of view of medical practice under local conditions, not from a theoretical standpoint; nor shall I discuss ideal methods, which we have no opportunity of using, though I shall briefly describe one ideal method which we may use sometimes. Our sub-tropical climate, with its long hot season, limits us in our choice of foods for hand-fed infants. Every November we have a large rise in infantile mortality from acute digestive troubles—diarrhœa, dysentery, gastro-enteritis, zymotic enteritis, etc., the differences between them being chiefly a matter of nomenclature. High temperature acts partly, no doubt, by impairing digestive vigour, but chiefly, I think, by fermentative and putrefactive changes in the food. To these changes infants are highly susceptible. I wish that we had a reliable source of milk supply suitable for infants—a dairy managed with cleanliness in the sense in which we use that word in surgery, from which the milk should be delivered to the consumer artificially chilled by ice. Such milk would have to be sold at a somewhat higher price than ordinary milk as now delivered, and it would be worth much more than the increased cost. Such a dairy, properly conducted, would, I think, be a source of commercial profit to its owner; and there is no doubt whatever that by the use of such milk infantile mortality in Brisbane might be largely reduced. Failing this, we have to do the best we can with present sources of supply, and are often compelled to use artificially preserved milks, which are inferior substitutes for fresh milk. I must say that I distrust milk said to be pasteurised in our hot weather. By pasteurised milk is meant milk heated to 150° or 160° F. for 20 or 30 minutes. This is, of course, not true pasteurisation in the original sense of the word, for that consists of repeated heating to this or a higher temperature on successive days. It does not, of course, sterilise, and is less efficient in this direction than the ordinary domestic scalding which raises the temperature to the boiling point. Like the addition of boric acid, this so-called pasteurisation is least effective against some of the more dangerous putrefactive organisms, such as get into milk that is not obtained in the first instance under scrupulous conditions of cleanliness. Unfortunately, this milk is supposed to keep much longer than ordinary milk in hot weather, and this mistaken belief is a source of danger; indeed, I have a suspicion that boric acid is sometimes added to increase its supposed virtue of stability, and the result is a sophisticated milk, objectionable in all sorts of ways.

I am accustomed to advise parents in the hot season to get the baby's milk from their own or a *neighbouring* cow twice in the 24 hours. The nearness is important in order that the interval between the milking and the scalding may be as short as possible. It also should enable them to have some control over the cleanliness of the milk-vessels, a matter which cannot be taken on trust. If cow's milk is not obtainable under these conditions, I am equally pleased with goat's milk. It is a pity that good milch goats are so difficult to procure. The only circumstances under which the scalding may be dispensed with are those in which the milk after being drawn can be immediately placed and kept on ice. It is also then important that the cow be non-tuberculous. I may remark in parenthesis that pulmonary phthisis is a common disease in Brisbane, and tuberculosis is frequent among our dairy cattle, yet all forms of tuberculosis are very rare in infancy and early childhood. I attribute this immunity to the prevalent custom of scalding milk for domestic purposes in order that it may keep at our high temperatures.

Diluted cow's milk is deficient in cream. Unfortunately, miscible cream is not obtainable from boiled milk. Bought cream is too dangerous for infants. It is better that a baby should be fed on a food somewhat deficient in fat than that he should run the risk of acute milk-poisoning. There is, however, a way of getting an increased proportion of fat that is perfectly safe, and that is by using the last part of the milking, known as the strippings. If this be done, especially if the milk is from a cow rich in cream, like the Jersey, we may to some extent evade the difficulty. For those who keep their own cow and an ice-chest there is a better way, which I shall describe presently.

Bread-jelly appears to be a favourite addition to milk for older infants in the old country. The bread is soaked in cold water for six to eight hours, then the water strained off and the pulp boiled in water for an hour and a-half. I have never used it; the prolonged maceration in our climate would, I imagine, result in a dangerous product. If a starchy addition is wished for, barley-water prepared by prolonged boiling, or the old-fashioned flourball, seem to have the advantage of being unfermented.

Again, raw meat-juice is excellent in some cases in winter; but in our summer temperatures, with the ever-present risk of taint from flies and other sources, I consider it dangerous, and prefer to use egg-albumin, which if not quite so good a nutrient, is safer, because aseptic.

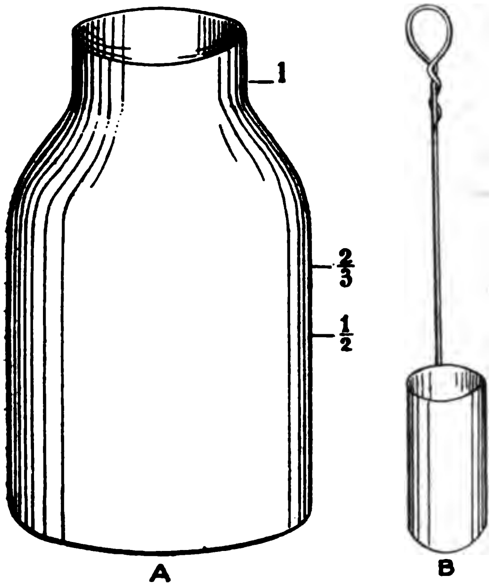
PERCENTAGE FEEDING WITH TOP-MILK.

The apparatus required consists of a few glass jars of known capacity, with a mark at the ½ and ⅔ level, together with a small dipper on a handle. The shape of the jars is of little consequence, and the dipper can be made by any tinsmith. The glass jars are filled with *perfectly fresh* unboiled cow's milk of average quality (not strippings), and except in very cold weather *must be kept in ice.*

When unboiled milk is allowed to stand in a vessel the cream rises; but cream is not a different substance to milk; it is merely milk with an increased percentage of fat. The proportion of fat is highest in the top layer of the milk, and graduates by degrees to a very low proportion in the bottom-most layers. After standing for four hours the proportions of fat in the various layers is exceedingly uniform. After standing for eight hours the proportion of fat in the various layers undergoes very little further alteration; the difference is negligible.

If an ordinary milk containing 4 per cent. fat is used, it will be found that if the upper *third* is removed with the dipper it will contain 10 per cent. of fat. This may be conveniently called 10 per cent. top-milk. The proteid and sugar will be not materially altered from the proportions present in ordinary milk. If we remove the upper *half* of the milk we obtain a 7 per cent. top-milk.

In 10 per cent. top-milk the proteids may be reckoned as one-third of the fat. In 7 per cent. top-milk the proteid may be reckoned as half of the fat. By diluting a suitable quantity of either of these top-milks up to 20 oz. with boiled water, in which 1 oz. of milk-sugar has been dissolved, we can obtain milk containing any desired proportion of fat, proteid and sugar with sufficient accuracy for practical purposes. The physician makes the calculations, which are very simple; the mother or nurse simply measures so many ounces of top-milk as are ordered. This can be done in any intelligent home.



A. Glass jar. B. Tin dipper with handle.

For instance, to make a mixture containing fat 3 per cent., proteid 1 per cent., sugar 6 per cent., take 6 oz. of 10 per cent. top-milk and dilute to 20 oz.

To make a mixture containing fat 3 per cent., proteid 1·5 per cent., sugar 7 per cent., take 9 oz. of 7 per cent. top-milk and dilute to 20 oz. [The calculation would give exactly 3·15 per cent. fat, 1·55 per cent. proteid, and 7 per cent. sugar, but the small decimals may be disregarded.]

For further details I must refer you to Holt's work on the "Diseases of Children." I have only recently used this ideal method, which enables the practitioner to accomplish with little trouble all that is done by a milk laboratory. Unfortunately, its usefulness is limited by the requirements that the milk must be perfectly fresh and clean, and that in warm weather (nearly all the year in Queensland) it must be ice-chilled at once and kept in ice.

PEPTONISED MILK.

Nothing has been of such service to me in treating infants as peptonised milk. Many infants have been brought to me who cannot digest the casein of cow's milk, and who have not thriven upon preserved milks or upon greatly diluted cow's milk. Excessive dilution of cow's milk to avoid disturbance of a weak digestion (I am not speaking here of its temporary use after acute vomiting and diarrhœal attacks) is a mistake. I hold strongly that no infant under two months should be expected to digest unmodified diluted cow's milk unless previously peptonised. A few can do so; but in many the attempt does much harm and renders the task of subsequently feeding them properly much more difficult than it need have been.

Any mother who will take pains can peptonise the milk properly. Medical men who do not realise this should blame themselves, not the mothers. Not a few times have I seen infants whose mothers could not get them to thrive on peptonised milk prescribed by other practitioners. On giving the mother precise written instructions, the difficulty disappeared. To tell the mother to make it according to the directions on the box is a fatal mistake. To obtain a uniform product, the temperature and time of peptonisation must be uniform. The most convenient temperature is that of the body, which the mother can gauge by her own sensations, for I seldom advise her to use a thermometer. The time should be prescribed as 20, or 30, or 40, or other number of minutes, by the clock, and the milk must then be *quickly* brought to boiling point. Finally, and this is most important, the accuracy of the product must be judged of by its taste. The faintly bitter flavour of partially peptonised and the distinct bitter of more fully peptonised milk are readily appreciated, and the taste is a sufficiently good check upon any error in preparation.

For an infant under two months, I would commence by ordering peptonised milk in the proportion of half milk and half water. As the milk has been already diluted in the process of peptonising by 1 to 2 of water, this means the addition of one spoonful of boiled water to every three spoonfuls of peptonised milk. Some form of digestible carbohydrate is added, either sugar or a completely dextrinised food, such as Mellins', which contains dextrine, dextrose, and maltose, but no starch. Sometimes I use barley-water, not as a rule in very young infants, and think it important that it should be boiled at least an hour; this, as recently pointed out by Dr. Corlette, of Sydney, is in order to convert the starch into the soluble form. It would be a grave error to be content with this dilution of the milk. After a time, varying according to the infant's condition, I would gradually withdraw the added water until the peptonised milk (two-thirds milk) was taken undiluted. When this strength had been attained I would gradually lessen the time of peptonisation until it appeared safe to dispense with it altogether.

But the infant may have been so reduced in digestive power by previous bad feeding, or a diarrhœal attack, that the administration of diluted peptonised milk is followed by the appearance of curds in the motions, followed by dyspeptic symptoms, which soon lead to a diarrhœal attack, perhaps with pyrexia. In these conditions we must *temporarily* lower the proportion of milk to suit the impaired digestive powers. This may be done either by increasing the dilution, or, better still, by measuring the milk with a drachm measure and giving it in fixed quantities, the milk meals being supplemented by milkless meals of white of egg and carbohydrate.

Another expedient in difficult cases is to increase the time of peptonisation. Holt recommends even two hours' peptonisation. Such milk is bitter and nasty, but he says young infants can be induced to take it. I have no experience of this completely peptonised milk, but intend to try it.

If peptonised milk cannot be tolerated even to the extent of a few ounces per diem, the only hopeful expedient is to get a wet-nurse; and I have seen a few lives saved by so doing. Careful management is necessary. It is not wise to put the infant to the breast, for by so doing you lose all control of quantity. These infants, far gone in starvation, either refuse to take the breast at all or take it greedily, and suffer an immediate exacerbation of their symptoms. The wet-nurse must suckle her own child, and a measured quantity must be withdrawn with the breast-pump every few hours for the ailing infant. Very gradually the dose is increased until the child's digestion has recovered sufficiently to allow unrestrained suckling, at which stage a good deal of trouble may be experienced in getting the unused infant to adopt nature's mode of sustenance. This accomplished, the nurse's baby should be weaned as soon as the foster infant's demands approach the normal.

Sudden changes in the food of infants are bad practice. Every change should, where-ever possible, be made gradually and tentatively. Nothing is more suggestive of inexperience on the part of a nurse or medical man than an unfortunate infant, who is bounced about from one food to another, in an apparently speculative hope, that it may fortuitously thrive upon something, that some other infant has thriven on. This procedure always reminds me of a vessel in a storm, whose captain has forgotten chart and compass, and is steering aimlessly one way after another, vaguely hoping that he may strike calmer water.

In all "feeding cases," continuous observation of the motions passed, and careful weighing at regular intervals, are essential. I will quote with approval a sentence from Holt's "Diseases of Infancy and Childhood": "What I wish to emphasise is that these cases are serious, that they are difficult, that in most of them nothing can be accomplished without close and continuous personal observation, that they do not tend to right themselves, and that an infant's life is often sacrificed as a result of bad management."

PROPRIETARY FOODS.

Of these there are many, but of few kinds. They may be divided into seven groups:—

I. Those containing no milk—(1) Completely dextrinised and containing no starch (Mellin's, etc.); (2) partially dextrinised, containing starch; (3) starchy or farinaceous foods; (4) the same with pancreatic ferments (Benger's, etc.).

II. Those containing *dried* milk—(5) Completely dextrinised (Allenbury's I, Horlick's, etc.); (6) partially dextrinised (Allenbury's II, Nestlé, Carnrick's, etc.); (7) not dextrinised.

Of these groups, 3 consists of ordinary farinaceous food, not materially altered, and is represented by many patent foods. Of 7, I know no example; 5 and 6 are intended as complete foods, and for delicate or very young infants the former class is preferable. I find them occasionally of use, but usually only as second-best, where good cow's milk is unprocurable; 1 is useful as an addition to cow's milk.

It is pitiable to see infants who have been given one patent food after another in the hope that "something will suit," when perhaps the only differences between the foods are the labels on the outsides of the tins.

INFANTILE SCURVY.

The subject of proprietary foods naturally brings us to that of infantile scurvy. All the cases I have seen have occurred in infants who had been carefully fed on these foods for many months. I never saw a case from ordinary "boiled" milk, and, as you know, milk is universally scalded in this city. I doubt whether scurvy ever results simply from scalded milk, for surely our experience of its use is sufficiently large. I do not doubt that prolonged boiling or sterilisation of the milk may lead to scurvy, but that is another matter.

This disease is often known as scurvy-rickets. The latter name is objectionable. Those cases I have seen were not rickety, and I believe the two diseases are perfectly independent, though commonly combined in England, where rickets is much more prevalent than here.

Infantile scurvy is a rare disease, and its true nature is not always recognised. This is unfortunate, for while there is no disease of infancy that yields so readily to treatment, there is none so obstinate and few so painful, when the right treatment is not adopted. It should be impressed on the minds of medical men that infantile scurvy is usually a *bone disease*. The first symptoms are noticed by the mother when she baths the baby. Its legs are tender, and the baby cries when one or both are handled. By-and-bye the tenderness increases, the infant lies with its legs flaccid and motionless, and cries whenever they are touched. One leg may be more affected than another, and the mother naturally imagines that the infant is suffering from the effects of a fall or wrench. Unfortunately, the medical man sometimes is of the same opinion, and thinks he is dealing with some obscure fracture or dislocation; and is strengthened in his opinion if he detects that the affected bone is actually enlarged, as if from callus. But these symptoms are due to hæmorrhage under the periosteum, with subsequent new formation of bone. There may be also hæmorrhages under the gums and elsewhere, but these are not early symptoms, and you must not expect to find them. There is however a rare form of infantile scurvy in which the only symptom is obstinate hæmaturia, which persists until the right treatment is adopted.

INTUSSUSCEPTION.

The most common age for intussusception is between the ages of six months and 12 months, and I intend to speak only of cases under two years. At these ages the accident is almost inevitably fatal if left to nature. Spontaneous reduction can hardly occur except in very early cases, which would hardly be recognised; and recovery by sloughing is equally unknown. Infants do not live long enough to undergo this process, which occasionally saves life in older children. Yet, if treated *early enough*, reduction should in nearly all cases be easy. In this disease the issue of life or death turns principally on a few hours' delay, hesitation, or infirmity of purpose. A case of intussusception brought to a medical practitioner must be diagnosed *at once*, and immediate steps taken to reduce it, if the infant is to have a fair chance of life.

As a rule, careful inquiry into the history of the case, and a thorough examination, should leave no doubt as to the diagnosis. The baby is usually plump and healthy. Without apparent cause, or after some indiscretion in diet, it has a violent screaming fit, attended by evident severe pain and collapse. This may come on directly after the passage of a motion. If a mother gives you a history such as this, think at once of intussusception. If after this the child has every now and then an attack of pain and straining, during which it passes nothing but blood-stained mucus, you may be almost sure of the diagnosis; but such attacks are not invariably present. If, however, there is a good deal of fæcal matter mixed with the blood and mucus, you will probably consider that the case is one of colitis, for the obstruction in intussusception is usually absolute; but here, again, there are exceptions—the obstruction may not be absolute at first, and for some hours fluid fæces may be mixed with the blood and mucus. In any case, palpate the abdomen carefully. If you find a tender lump, it is your duty to give chloroform, to examine the abdomen more thoroughly, and having made out the tumour more exactly, to proceed to reduce it.

The main obstacle to reduction is the swelling of the intussuscepted gut, which, having its vessels nipped above, becomes greatly swollen by congestion and œdema, like a prepuce nipped by paraphimosis. To reduce it you may have to use considerable force. The longer the delay, the greater the difficulty.

There is a tendency at present towards subjecting all cases of intussusception to cœliotomy. With this I am not altogether in agreement. Perhaps my experience has been exceptionally fortunate. Out of my last eight or nine cases reduction by hydrostatic pressure was tried in all but one: in one it failed; all the remainder made perfect recoveries without further treatment. But to get good results you must observe the following conditions:—Firstly, the infant must be thoroughly anæsthetised; secondly, you must, if necessary, use a high degree of pressure. The risk of rupturing the bowel is very small, and you must take it. Thirdly, the reduction by injection must be attempted once and for all; never repeat it. If it fails, cœliotomy is the only course. Whether you use a short nozzle or a catheter introduced for several inches matters little. A conical plug of soft rag and firm manual pressure on the buttocks are necessary. I think a long enema is as good as a douche can and long tube. At first I used to be afraid of using too great pressure, but it is difficult to keep up pressure enough owing to the escape of fluid from the anus. If reduction fails to be complete, let the infant have an hour or so of rest while you get things ready for abdominal section.

If the case comes to you within 12 or 18 hours of the onset you have a good chance of successfully reducing the intussusception. If after 24 hours, your chance is not so good, but by reducing the greater part of the more recently involved gut you diminish the shock of a subsequent cœliotomy and make it easier. I once reduced a case so late as the third day. The family doctor recognised the presence of an intussusception, and called in a consultant who held a different opinion. Next day I was called in. In spite of the history it was difficult to believe that the infant had an intussusception of this duration on account of the absence of collapse. Yet there was a tender lump in the abdomen. Digital examination showed the rectum to be distended with gas, and on withdrawing the finger the reddish mucus that escaped was slightly stained with fæces. Evidently the strangulation in this case was much less than usual and the obstruction not quite complete. This encouraged us to attempt reduction, which was successfully accomplished, though with difficulty. I may add that once the infant was put under chloroform there was no possibility of doubt as to the diagnosis.

DIARRHŒA.

Diarrhœa is a symptom, and depends on many causes. I purposely adopt it for a heading, rather than some word which might appear more scientific, as we have no time to-night to discuss questions of nomenclature. The pathological conditions which cause diarrhœa in infants have received many names, most of which are misleading and worse than useless. It is better to discard all names and to ask ourselves in any case of diarrhœa in an infant the following questions:—

Is this an acute attack, or a chronic condition, or an acute exacerbation of a chronic condition? Is the incidence principally on the small or the large intestine? Is it due to defect in digestive power, or to toxic or infective ingesta, particularly stale and fermenting milk, or to a combination of these causes; and if so, which is the preponderating factor?

Unless you ask yourselves these questions, and answer them with some approach to correctness, you cannot treat these common diseases rationally.

There are no cases for which treatment by routine is less adapted, none in which acute clinical observation of the individual patient is more important, none perhaps in which frequent visits and close watching are more necessary. In a paper like the present, one can only deal with the general principles of treatment; the adaptation of these to each case as it arises cannot be put in writing. Firstly, let me deal with severe acute diarrhœa, with or without vomiting, such as is so common at the beginning of the hot weather. The proper treatment of such a case in an infant is wholly different from the proper treatment in an adult. If I suffered from such a condition myself, I should very likely confine myself to a milk diet, and might take a mixture containing small doses of opium. For an infant such a line of treatment is infinitely worse than no treatment at all; the practitioner who adopts it is the accomplice of death. Consider for a moment. Here is an infant whose alimentary canal is loaded with decomposing, poisonous milk; it has a dry tongue, and all digestive processes are at a standstill, but it is excessively thirsty, and will drink eagerly any liquid you may give it. Nature is trying to free it from the cause of its symptoms by vomiting and purging. If you inhibit these efforts by opium, and add to the putrescible material by giving more milk, no language can be too strong to express your error of judgment.

Every summer we see a few cases, sometimes a good many, of what is called ptomaine poisoning. The name is a bad one, being based upon an imperfect theory. The disease is caused by badly-preserved meat, which has become a culture medium for certain bacilli of the coli group, whose metabolism leads to the formation of highly poisonous toxins. Cooking may destroy the bacilli but not the toxins. The symptoms produced are vomiting, purging, fever, intense collapse, and sometimes death. They are the result of irritant poisoning, which perhaps leads sometimes to a true septicæmic infection, the toxic bacilli entering the blood and tissues of the collapsed patient. What we meet with occasionally in adults, we meet with frequently every summer in infants; for there is no pathological distinction to be drawn between the meat-poisoning of adults and the milk-poisoning of infants, except that the latter are immensely more susceptible. While I regard this as the true explanation of summer diarrhœa of infancy, it is quite possible that more exact knowledge may show that the bacteria responsible for the intoxication may differ in various cases. Recently valuable evidence has been brought forward by Dr. Litchfield, of Sydney, to show that the bacillus dysenteriæ of Shiga is the cause of some cases. This is of practical importance as indicating (1) that anti-dysenteric serum may be of service, and (2) that the intestinal discharges should be disinfected. I hold strongly to the opinion that those cases in which the large intestine is affected from the start, as shown by the slimy, blood-stained evacuations, are highly infectious, the contagion being spread by the industry of flies, which divide their time between the baby's napkins and milk and other articles of food. But I am not disposed to believe that all cases of summer diarrhœa, or even the majority, are due to this one organism.

To return to the treatment of these acute cases. The indications are urgent—(1) to stop all food, *especially milk*, at the outset; (2) to allow the alimentary canal to empty itself, and to assist it to do so. Thirst must be satisfied, and the infant should have as much boiled water as it likes to take. Should this be vomited, good; the stomach is none the worse for being washed out; give more water. Irrigation of the stomach I have seldom practised, but I have no doubt it is useful in cases taken at the very start. Irrigation of the colon can do no harm, though it is not always necessary in acute cases; but if the bowels are not acting freely, it is imperative. Of drugs, nothing is so good as a teaspoonful of castor oil, if it is retained. Next to this is calomel, which is very rarely vomited. I usually give $\frac{1}{6}$ or $\frac{1}{8}$ of a grain every hour or two until one or two grains have been taken. Under this treatment your case will, as a rule, show marked improvement within a day or two. But now your difficulties commence. If you put the infant back on a milk diet it will almost infallibly relapse. Should you be dealing with a fat, well-nourished infant, starvation may be well borne for a few days; but if it should be weakly and emaciated, some nourishment must be given. Frequently you are led to give milk in small quantities too soon; a relapse of all the symptoms rapidly follows, and you lose your patient, or have to recommence your initial treatment with a patient whose vitality is lower than it was at first. It should be a general rule not to give milk until the temperature is normal and irritative symptoms have disappeared. White of egg water (the white of one egg to half or one pint of boiled water) is an excellent sterile, unirritating proteid food. Carbodydrate may advantageously be added to this by substituting barley-water for plain boiled water, or perhaps better by adding milk-sugar or Mellin's food. On this mixture the infant may be fed for a week, or even two or three weeks. You must not expect it to fatten on such diet, but if it lies quiet and prostrate, it uses little energy and often wastes but little. Your return to milk (peptonised or not) must be made gradually and cautiously. Sudden changes are always a mistake. Add a little milk to some of the bottles and watch the motions for curds. If the milk is assimilated, increase the quantity until by degrees the infant returns to a full diet. Never forget that until this is accomplished your case is not cured. The return to normal diet is the most difficult part of the treatment, and to leave it to the mother or nurse is to abandon your patient when your services are most needed.

This is an outline of the dietetic treatment, by far the most important part of the treatment. Its adaptation to the particular case often tests all your resources, even with sensible mothers and good nurses, and too often we have to do our best with foolish instruments and refractory assistants. Drugs will not help us much. Polypharmacy is nowhere more out of place than in treating babies. A dose of castor oil whenever you have given more milk than the baby can digest, as shown by a rise in temperature and return of diarrhœa, is better than the whole pharmacopœia. Bismuth is the best routine medicine, and by bismuth I mean the subnitrate; the other preparations are less valuable. It should be given in doses of 5 to 10 grains every three or four hours, according to age. Of antiseptics, salol and benzonaphthol come next; they are tasteless, do not irritate the stomach, and may be of some use. But salol decomposes partly into carbolic acid, and may irritate the kidneys. Astringents should never be used in acute cases. In chronic conditions, especially those affecting the large intestines, I have seen tannigen do good. It is far superior to the other astringents, but its field of usefulness is limited. Of more value are irrigations of the colon twice a day with large enemata of salt solution, to which I usually add a little permanganate.

It remains to say a few words about opium. No drug is more lethal, conduces more certainly to euthanasia in these cases, if improperly used. I suppose most medical men kill an infant or two with opium, before they learn wisdom. I have certainly done so, but I hasten to add that it was very many years ago. In acute cases it should be given very seldom, with the greatest care and anxious watching, if at all, and never in complex mixtures to be given by the mother every few hours; no, not even in minute doses. If given at all, it should be given separately and the repetition of the dose determined by its effects. In acute cases with watery stools I never give it. Holt employs minute doses of morphia hypodermically in some cases of cholera infantum, but never so as to check the diarrhœa. In some acute cases with very frequent dysenteric evacuations, accompanied by much pain and straining, I would give opium, but never to stop the motions; probably I would give castor oil simultaneously. In some chronic cases where the frequent evacuations are due to intestinal irritability, causing exaggerated peristalsis, small doses of opium act well; but it is not easy to distinguish these cases beforehand. On the whole, I would say give opium very seldom, very cautiously, and when in doubt, don't.

For the irritability and restlessness common in these cases, the bromides are useful, in doses of two to five grains, repeated as necessary. Chloral in grain doses is also well borne, and is sometimes useful also in checking vomiting. Creosote in doses of ¼ grain in mucilage is also a good gastric sedative. But perhaps the best general sedative, especially if there is fever, is the use of warm packs. Where there is much collapse, indicated by the sunken and imperfectly-closed eyes, brandy or whisky are useful, If these are to do good they must be given in sufficient dose, ⅓ or ½ of a teaspoonful not too much diluted. The subcutaneous injection of saline fluid is our best resource in collapsed conditions; it may tide an infant over a critical time, and can do no harm if carefully given. During convalescence, and sometimes during the attack, I give dilute hydrochloric acid in minim doses just before or after feeding. No doubt other therapeutic measures are sometimes useful, but those mentioned are my usual routine; and it is on the whole best to stick to the remedies one has used and tested than to experiment with newer and untried drugs.

PHIMOSIS.

Just a few words in conclusion on the treatment of this condition. I have no quarrel with the ancient operation of circumcision when performed for ceremonial reasons; but when the operation is done on medical advice, it should be necessary for good medical reasons. Many, perhaps most, of the circumcisions now performed are, I believe, unnecessary. In children over two or three a phimosis causing no symptoms may as a rule be safely let alone. It will disappear at puberty, and the accident of paraphimosis is not very frequent and not very dangerous. Before two, a phimosis ought to be dealt with in case it may cause trouble, and preferably in the first few weeks after birth. The great majority of cases can be successfully treated by stretching the prepuce and stripping it off the glans. No anæsthetic is needed; the little operation is completed within a minute or two, and there is no bleeding, or only a drop or two. If not prevented, the prepuce will of course contract again. For a day or two it may be necssary for the surgeon to draw back the prepuce himself unless a trustworthy nurse is available. After that the mother can usually be trained to perform this little manœuvre every time she baths the baby. In a few weeks the tendency to contraction is overcome.

Circumcision is only necessary when there is no nurse and the mother is incapable or cannot be trusted to attend to the baby, or in cases in which the contraction is unusually tight and recurs obstinately. It is, of course, also indicated where the prepuce is abnormally long and causing irritation, and in the rare cases in which it is suspected of causing reflex symptoms. Circumcision may be a trivial operation, but that is no justification for performing it unnecessarily. I have seen one case fatal from recurrent hæmorrhage in an unhealthy infant with a chronically inflamed prepuce. This death might, I think, have been prevented. I have seen two cases of erysipelas following the operation, one of them fatal. The fatal case occurred in a boy of some years who was suffering from balanitis, and the infection was due, I believe, to this. I prefer now not to operate in these cases until the local suppuration has been cured. Such calamities as fatal sepsis after circumcision may be very rare, but they leave an impression on the operator which is never forgotten.

(Read before the Queensland Branch of the British Medical Association.)

A CASE OF MYELOGENIC LEUKÆMIA TREATED WITH X-RAYS.

By C. Reissmann, M.A., M.D. (Camb.), B.Sc., L.R.C.P. (Lond.), Adelaide.

LEUCOCYTHÆMIA is a deadly disease. It may run its course with extreme rapidity, or it may be prolonged for several years. It may affect the lymph glands alone, or it may affect the marrow of bones; but in the end the result is the same—the patients die from it, some sooner, some later. But during the last year or two a therapeutic agent has been discovered in the X-rays, which has a pronounced influence in this disease. There is a reasonable hope that in the X-rays we may have found an agent more valuable than arsenic or any other drug that has been used in the treatment of leukæmia.

The patient whom I have brought before you to-night first consulted me in December, 1903. He was a clerk and was then 40 years of age, and had spent the whole of this time in this State. His parents were living, and he was one of a family of ten. Many years ago he broke his left forearm, but excepting for the fact that he had been addicted to and suffered in consequence of alcoholic excess, had never had any illness. For two years he had had occasional pains in the left hypochondrium, probably due to perisplenitis and pains in his ankles and lower parts of his legs. His stomach had gradually enlarged, and in January, 1903, it was discovered that he had a large spleen. When he first came to me, 18 months ago, he was a thin man, with dark, pigmented skin (due to arsenic), and a prominent abdomen. He walked with his head bent forward, with a stooping gait, and his legs apart. He weighed 9st 6lb. The spleen almost filled the abdomen, reaching to the left iliac spine below, and to an inch and a-half to the right of the umbilicus. The liver was not enlarged, neither were any of the superficial lymphatic glands. The heart was normal in size, and the sounds were clear and unaccompanied by any murmur. The pulse was of good volume, and the arterial blood pressure was equivalent to 100 m.m. hg. The respiratory system and the nervous system showed no evidence of disease. The fundus oculi was normal, and there were no hæmorrhages. The urine was free from albumen and sugar. The blood examination demonstrated a certain amount of anæmia of the secondary or chlorotic type. The red cells numbered 3,520,000 per c.mm. The hæmoglobin was 66% and the coloni index 0·94. The red cells were ill-formed (poikilocytosis), and among them were many very small cells (microcytes) and some very large cells (megalocytes), but at this examination no nucleated red cells were seen. The number of leucocytes was greatly increased, being 336,200 per c.mm. The several varieties were present in the following proportion :—

Polymorphonuclear neutrophils..	60%
Eosinophils	19%
Myelocytes	13%
Transitional cells	2%
Lymphocytes	5%
Mast. cells	1%

The case was clearly an example of what used to be called splenomedullary leukæmia, but is now called myelogenic leukæmia.

I first treated him with a mixture containing nuclein and arsenic, but within a week his leucocytes had increased by 120,000 per c.mm. Therefore the nuclein was discontinued and arsenic alone administered. He grew worse, passing many dysenteric stools containing blood and much mucus, but the number of leucocytes fell to 140,000, being 191,000 per c.mm. less than at the first examination. At the same time there was an increase in the number of red cells and in the percentage of hæmoglobin. The spleen also became smaller and softer. On the whole, arsenic did him good.

Early in January, 1904, he had severe epistaxis, and he complained of pain in his legs. It now occurred to me to try the effect of the X-rays. I had not at this time heard of Dr. Senn's case, which was published in the *Medical Record* of August, 1903, but I had seen the X-rays used at the Middlesex Hospital in cases of advanced cancer of the breast, and the result was sometimes very remarkable. I had long regarded leukæmia as a malignant growth of the blood-forming organs, and I hope that this view of its pathology will soon be decided by an examination of the number of chomosomes in the dividing cells. Arguing from the result of X-ray treatment in cases of cancer, it seemed to me probable that the rays would act beneficially in leukæmia. At first I used a static machine, and the rays were directed for ten minutes each to the spleen and to the feet and lower limbs. This treatment was commenced January 8th, 1904, and exposures were made three times a week. Within nine days the leucocytes had fallen to 97,600 per c.mm., and the patient felt much better. The number of myelocytes was greatly diminished; only one was seen in an examination of 1000 leucocytes. Many leucocytes showed evidence of vacuolation and degeneration. The mast. cells (*i.e.*, cells with basophil granules) were now in excess of the eosinophils; but the number of red cells had also fallen, and among them were many nucleated corpuscles, 13 being seen while counting 400 leucocytes. Some of the nucleated red cells were actively dividing; most of them were normoblasts. A localised systolic murmur was now heard at the apex and base of the heart. The patient was therefore ordered iron in addition to arsenic, and the X-ray treatment was continued. Towards the end of January, 1904, the patient had gained 1½ lb. in weight. His blood pressure was equivalent to 120 mm. hg.; but he was very weak, and he exhibited symptoms of arsenical poisoning. Arsenic was therefore omitted, and the patient took quinine and iron, and the X-ray treatment was continued.

Early in February he grew worse. His temperature rose to 99·4°, his blood pressure fell to the equivalent of 90 mm. hg., the spleen reached to the umbilicus and was hard, and the patient had lost 3½ lb. weight. He complained also of priapism and of pain in his legs.

On February 8th, 1904, he had a rigor, and the temperature rose to 101°. A large gland was discovered in the posterior triangle of the neck on the left side. A week later he felt well, better than he had been for months. The spleen had contracted, its lower limit being 1 in. above the umbilicus. The red cells numbered more than 5½ millions and the leucocytes 71,000. On Febraary 20th, petechiæ appeared over the left shoulder and left knee. I now discontinued the X-ray treatment, for it was expensive, and I was at this time not convinced of its efficacy. The patient was again treated with arsenic. Soon after this he became very weak, and his leucocytes multiplied. In March, petechiæ appeared on the thorax and, later, over the loin. The patient was passing six pints of urine a day at this time. For a few days the uric acid and the phosphoric acid output were measured. The results are tabulated below.

Date.	Volume of Urine.	% Uric Acid.	Total Uric Acid	% P_2O_5.	Total P_2O_5.
Feb. 4 ..	—	0·56	X-Rays.		
Feb. 8 ..	—	0·1			
Feb. 16 ..	—	0·85			
Feb. 18 ..	—	0·044	—	—	—
Feb. 20 ..	—	0·03	—	—	—
Feb. 23 ..	—	0·049	—	—	—
March 1 ..	—	0·043	—	0·035	—
March 3 ..	—	0·061	—	0·04	—
March 8 ..	2842 c.c.	0·057	1·05 gms.	0·056	1·59
March 10 ..	3552 c.c.	0·018	0·64 gms.	0·058	2·06
March 11 ..	3410 c.c.	0·015	0·51 gms.	0·041	1·35
March 14 ..	2842 c.c.	0·053	1 49 gms.	0·102	2·9
March 16 ..	2842 c.c.	0·0492	1·39 gms.	0·064	1·81
March 21 ..	—	—	—	0·048	—
March 25 ..	—	—	—	0·046	—
March 28 ..	—	—	—	0·045	—
April 23 ..	—	—	—	0·03	—

The figures show that during the X-ray treatment the uric acid output was increased, and this was probably due to destruction of leucocytes.

In May, 1904, there was a subconjunctival hæmorrhage in the left eye. In June the patient was very weak and ill, and he had several attacks of severe perisplenitis. The leucocyte count was low. Symptoms of arsenical poisoning had appeared; the drug was therefore stopped and extract thyroid gland given.

In September he was extremely ill and confined to his bed; attacks of perisplenitis were so frequent and of such severity that morphia injection had to be given. In October he was even worse. His spleen was enormous, and he was in constant pain. For many weeks he had severe diarrhœa, with much mucus and blood, and he spent the greater part of the day on the stool. By the end of the month he had become so weak and exhausted that I almost despaired of his recovery.

In this condition he remained during November and December. The leucocyte count was now half a million, and was greater than it had ever been. In January of this year he was still desperately ill. By this time he had wasted almost to a skeleton, but the abdomen being filled with the massive spleen remained prominent. He complained less of pain over his spleen, but he suffered almost continuous pain in his legs and feet. Diarrhœa continued, but was less constant. The temperature was 100°. By the end of January he was rather better, and he was well enough to be driven to town.

Meanwhile I had read reports from America and from Germany announcing the successful treatment of leukæmia by X-rays. It had also been shown by experiments on dogs and rabbits that the X-rays exert a profound and destructive influence upon the spleen and marrow, and upon lymphoid structures wheresoever they may be found, picking out the lymphocytes and disintegrating their nuclei, which are subsequently engulphed by phagocytes.

I had now my own X-ray installation, and therefore, although the patient was so ill that he seemed almost beyond recovery, I nevertheless again started the X-ray treatment on January 30th of this year.

Cox's heavy anode tube was used, the resistance of which was about ten inches. It was fitted over the left hypochondrium, about six inches away from the skin. A current of about four ampères and 60 to 80 volts was driven through it. After an exposure of 10 to 15 minutes the bulb was placed over the ankles and lower limbs for an equal length of time. This treatment has been continued two or three times a week till the present time. When it was commenced the lower limit of the spleen was four inches above the pubic symphisis and four inches to the left of the right inferior iliac spine. At the end of the first month the patient had gained 10 lb. in weight, the spleen was small; he had been entirely free from pain and from diarrhœa. There was a fall in the leucocyte count equal to 356,200 per c.mm., the leucocyte count now being 49,400 instead of 405,000. There was a slight X-ray burn on the skin of the abdomen. The patient assured me that during the whole course of his illness he had never felt so well. The improvement has been maintained ever since.

At the end of March, that is, after two months' treatment, the patient had gained over 20 lb. in weight and the leucocyte count had fallen to about 20,000. The X-ray burn over the abdomen was slightly worse; the rays were therefore directed to the spleen from behind, the patient lying on his face.

In April the lower end of the spleen was seven inches above the pubic symphisis and six inches above the right inferior iliac spine. The leucocyte count remained low, and the red cells numbered over five millions. The patient was still gaining weight, and he felt perfectly well. By the end of June the spleen had almost disappeared below the ribs. The patient looked a well-nourished man. He moved about actively, walking with his head erect and body straight. His abdomen was no more prominent, and to all appearance he was perfectly sound and well. No one seeing him for the first time could have suspected that this man was suffering from leucocythæmia. But such was in fact the case. His leucocyte count, though only 40,000, still rose occasionally to 60,000, and it preserved the characters of leucocythæmia; but beyond this and the slight enlargement of the spleen the patient had neither subjective symptoms nor objective signs of disease.

I have no hesitation in asserting that this man owes his life to Professor Röntgen, the discoverer of the X-rays. Before the treatment was commenced he was very ill, and day by day and month by month he steadily grew worse. He had frequent hæmorrhages into the skin and bowels, he was in constant pain, and exhausted with frequent diarrhœa and prolonged fever. He was physically and mentally a total wreck, anxiously looking for the end of his days. Since the X-ray treatment was commenced he has been rapidly restored to health, and for six months he has had no symptoms of disease.

The X-rays are now being used by many physicians in the treatment of leukæmia, and the general opinion seems to be that it is most successful in the chronic forms of leukæmia. In acute leukæmia, and especially in acute lymphatic leukæmia, has it failed to arrest the progress of the disease, and in four cases reported all the patients died.

(Read before the South Australian Branch of the British Medical Association.)

ECLAMPTIC CONVULSION OCCURRING FOURTEEN DAYS AFTER CONFINEMENT.

By George Cuscaden, L.R.C.P. & S. (Edin.), Hon. Out-Patients' Surgeon, Women's Hospital, Melbourne.

On April 17th, 1905, I was called to professionally attend Mrs. B., *æt.* 33, primapara. With the aid of forceps I delivered her of a healthy male child weighing 9 lb. Her convalescence was uneventful. On May 1st she had been across the street to see her mother, and on her return she was seized with an epileptic form of convulsion which lasted 30 minutes. This was followed six hours later by another fit, which lasted 20 minutes. I saw her in the second attack. The muscles of the nostrils and the face moved spasmodically, the mouth was down to one side, the tongue was bitten, the forearms were flexed, the thumbs applied to the palms, and the fingers over them. Slight coma followed, when she became semi-conscious and answered when spoken to. Her temperature immediately after the fit was 102°, pulse 120. The urine contained albumin. She complained of internal pain over the dorsal spine, with tenderness on pressure. May 2nd: Temperature, 99°, pulse 90. May 3rd: Temperature and pulse normal. She said she felt quite well, and wished to get up. I advised rest in bed, with milk diet. On May 9th and 10th she had two more fits, not so severe in character. Again, on May 18th she had two mild fits, only lasting a few minutes. I saw her on June 21st. She has had no more fits. She is now in good health, and eats and sleeps well. Urine is free from albumin. I might mention that the temperature and pulse were raised, the former 101° to 102°, pulse 120 to 130, following the convulsion. In the course of a day or two they again became normal. The urine of the eclamptic is usually scanty, contains albumin in varying proportions, various casts, epithelium from the urinary tract and blood cells. Cases of eclampsia have occurred in which the quantity of urine was not lessened, and showed only a faint trace of albumin. Eclampsia is most frequent in labour, seldom after it. Twenty-eight days have passed in a patient observed by Bailly, and 58 in a case of Sir James T. Simpson. It has been questioned whether attacks first occurring more than two weeks after labour should justly be included under puerperal eclampsia. In the great majority of cases in which the disease happens in pregnancy the time from the seventh to the ninth month offers the greatest liability. Epilepsy presents the most striking resemblance to eclampsia: the same loss of consciousness and of sensation, the same series of tonic and clronic convulsions, succeeded by coma; but then the fact of pregnancy, the predomination of eclampsia, the number of attacks, the condition of the urine (not albuminous or only slightly); and, above all, the previous history of the case would prevent doubt or confusion in diagnosis. The epileptic does ? not present a constantly rising temperature; the eclamptic does. Faulty metabolism and impaired secretion are important factors in the causation of eclampsia. So far as my experience goes I have had good results with thyroid extract treatment.

(Read before the Victorian Branch of the British Medical Association.)

Cure not complete ?

REVIEWS AND NOTICES OF BOOKS.

A Treatise on Plague. By W. J. Simpson, M.D., F.R.C.P., D.P.H., Professor of Hygiene at King's College, London. Cambridge: At the University Press. Pp. 466.

Although from antiquity plague has been distinguished, its scientific study has become possible only during the past 11 years. Previously it had manifested itself for the most part in remote and inaccessible corners of the earth; but it has been seen lately in a great many cities and countries well furnished with competent observers, with the consequence that a very large number of papers upon it have now been published. Perhaps so much has never before in so short a time been written on any single disease; hence the Syndics of the University Press were well advised when they formed the opinion that a work would be welcome which (as stated in the preface) should bring together within a moderate compass the chief facts concerning plague. They selected Professor Simpson to write it. His qualifications for the task were of two kinds—his experience as a sanitary administrator, and his acquaintanceship with the disease. He had been Medical Officer of Health at Aberdeen; afterwards he served for 11 years in the same capacity with the Municipal Council of Calcutta. As the latter two years of his stay at Calcutta coincided with the earlier two years of plague in Bombay, he had opportunity, doubtless, of studying the disease in that Presidency; he had a further opportunity of watching it in South Africa, where the Government of the day took advantage of his presence in Cape Colony on other business to seek his opinion as to the cause of death of certain rodents, during the outbreak which was then beginning; and in 1903 he was appointed a commissioner by the Colonial Office to enquire into the causes of the continuance of plague at Hongkong. His present work extends to about 185,000 words, and is divided into four sections, which deal with the history and distribution of plague, the epidemiology of plague, plague in the individual, and measures for the prevention and suppression of plague. It is illustrated with photographs which show very well the appearances presented during life by buboes and necroses of the skin, and with several maps. It need hardly be added that it has been produced with all the excellencies of paper, type, and careful reading for which the University Press is noted.

A work which has the dimensions just adverted to cannot be completely reviewed within the brief space at command; some notice of its more important, or, to us in Australia, more interesting, features must suffice. And here, on the threshold, the question whether the book need have been extended to a length which may almost be called inordinate, obtrudes itself. Difficulties of mere compilation must be recognised; almost everyone who has been brought into contact with plague has published something upon it, and the labour of reading the mass of material easily at command must have been very great. The author's industry, therefore, may be unreservedly praised. But his real task began when he had reached the stage of critical appreciation and judicious selection from that great mass; and, unfortunately, it is not possible to speak of the results of his agency in those directions in quite the same terms. While, on the one hand, by a dozen turns of speech he leaves an impression on the reader of deficiency of practical experience, on the other hand he seems to have attempted to surmount the difficulty of selection by including everything. Yet he has omitted much of importance.

As regards the ætiology of plague, Professor Simpson lays very great stress on the efficiency of communication of the infection from the sick, and regards this as the essential cause of epidemics. Consistently with this view he insists strenuously in the section which deals with the suppression of plague on the importance of evacuation, establishment of contact camps, and such meticulous disinfection as is necessary, for instance, with smallpox. It is true that he also lays stress on the influence of plague rats in disseminating the infection; but he avoids committing himself to any definite expression of opinion as to its extent. He does, indeed, at page 214 pronounce "extreme" the view that plague rats can by themselves give rise to epidemics; but then at page 68 he points out, also, how remarkably slowly the infection spread at Bombay, although the circumstances were very favourable to its communication from the sick, and at page 66 that the disease was seen to accompany migrations of rats, not migrations of persons. He offers no explanation of this apparent conflict between observation and opinion; the reader is blandly presented with the riddle, and is left to find the solution if he can. This is hardly what is expected of a teacher. When, however, Professor Simpson says at the same place (page 214) that in 1898 "Hankin and Simonds" (for thus he persistently misspells the name of that distinguished French officer, Dr. P. L. G. Simond), after having summarised the facts which had then been observed, concluded that rats played an important part in the diffusion of plague at Bombay, and that this conclusion "was the same as that which had been arrived at by many with practical experience of plague," betrays inability to appreciate the difference there is between scientific evidence, and the impressions in which the "practical" man so often misplaces his trust. To justify this criticism would take too long. It must be left to those who have read the two papers which were separately published by the two observers mentioned. It cannot escape notice that those disquisitions are entitled to be classed as original, if any of their kind may be fitly so called, and that it would, perhaps, have gone better with India in these latter years had the suggestive conclusions to which they pointed not been entirely neglected there.

Throughout the book there is evidence that Professor Simpson lacks the judicial faculty which, under the circumstances mentioned at first, was indispensable to its successful production. It is not surprising, perhaps, that he should adhere to the view he originally took of the nature of certain cases which he observed at Calcutta in 1896; and we hasten to say that, for all that is known, his opinion that they were cases of plague may have been well founded. The gist of that business lay in this: that he failed to make and to communicate his observations so as to convince others—either the Special Medical Board which was appointed at the time, or the Indian Plague Commission which reheard him long afterwards. Similarly, he now refers to his experiments on the inoculation of domestic animals with plague, as though their validity had been generally acknowledged, and without appearing to be aware that his account of them is thought by some to fail in the same respects as the account he gave of the Calcutta cases seven years before. He mentions Watkins-Pitchford's work Natal, where these experiments were repeated without any success, and accounts for the failure by remarking that they were not done during the epidemic period, and that the bacilli may not have had the virulency it possessed in China. The value of this defence appears doubtful after the details of the experiments have been studied, and our author is hardly just in refraining from mention of the name of Mr. Watkins-Pitchford, F.R.C.V.S., who carried them out. No notice is taken of Lieut.-Colonel Bannerman's experiments at Bombay, where the failure which was met with cannot be accounted for on the same grounds at all events.

There are several references to plague in Australia. In a map of the world, Fremantle is noted as a place to which one or more cases of plague have been imported; not, as it should be, as one where indigenous cases have occurred on separate occasions. The several ports of Queensland at which indigenous cases have been met with are unnoted, Brisbane excepted. The omitted facts have importance in relation to detection of the means by which the infection is diffused, and as evidence of it. Professor Simpson remarks that special value attaches to observations made in South Africa and in

Australia, because the history of each case was more easily traceable there than in Eastern countries; but he makes no other use of the many reports which have now issued from Queensland, New South Wales, South Australia, and Western Australia, than is herein mentioned. It remains doubtful whether this has resulted from want of perception or from carelessness, because the conjunction of South Africa and Australia in this connection arrests attention. It is with coloured races that the epidemiologist's insuperable difficulties begin. Now, whereas the proportion of coloured people, whether existent or affected, is in Australia so small as to be entirely negligible, we have learned from other sources that the proportion of coloured to white among the 766 patients who were discovered at the Cape in 1901 was about 73 per cent., and that in Natal in 1903 it was no less than 90 per cent. Hence South Africa and Australia are sharply distinguished from each other for the epidemiologist, and could not be thus mentioned together by any expert writer on this subject.

As regards possible agency of the flea, Professor Simpson remarks at page 251 that experiments which he has earlier mentioned have shown that infected fleas can communicate plague to healthy animals. We had thought it pretty generally known by this time that this has not yet been shown—that is, to satisfaction—anywhere. On referring to the pages quoted, inaccuracies and omissions appear which, besides, are freely scattered throughout the book. Nuttall did not experiment with fleas and plague, as is there asserted. No mention is made of negative results got by W. Kolle in 32 experiments with fleas and plague. Tidswell is mentioned as having seen that "the pulices" bite man. *Pulex* is a genus which contains many species; of a majority it is not known whether they will or will not bite man, and no interest attaches to them in connection with plague. What Tidswell did was to ascertain by exact experiment that two species of *Pulex* which infest rats, but which are not found on man, will, nevertheless, bite man freely under certain circumstances. Liston's experiments with fleas, as described by Elkington in these columns, are referred to; but, singularly enough, the method he invented, by which a degree of accuracy was secured which has not been otherwise attained, is overlooked. However, this is the less important that Liston has not published his results; and here, again, the author does not observe that he has but second-hand authority for the particulars he gives of his experiments, or else does not think this of any importance. Dr. Halford's account of serum treatment at Brisbane is quoted. This subject is treated with prolixity; no new suggestion is made.

We should be sorry to convey an impression that this work is useless; it contains, on the contrary, much to profit a cautious reader who is already well acquainted with the subject. Still, the errors and omissions which have been mentioned above have not been captiously picked out; they indicate an attitude of mind which in one important respect or other seems to us to be faulty. Something more than a collection of the sayings of all and sundry on the ætiology of plague was to be expected from a professor of hygiene who had been specially selected to write on that still obscure subject. Accuracy, penetration, and a sense of the value of evidence would go far to secure production of a work of lasting value, were they accompanied with philosophic deliberation. But this work bears every mark of hasty preparation; and to many enterprises haste is fatal. It is difficult to imagine what the occasion can have been. The Syndics can hardly be conceived of as supposing that publication before some particular date would materially assist the committee on plague recently appointed by the Royal Society and the India Office in its efforts to save India; howbeit, haste is manifest.

LATERAL CURVATURE OF THE SPINE AND PELVIC DEVIATIONS. By Richard Barwell, F.R.C.S. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 3s net.

We are told in the preface that though this book appears as the sixth edition of an earlier work on lateral curvature of the spine, it has been "entirely re-written, and sets forth certain facts, which I discovered in and about 1890, which constitute the key to the problem of spinal curvature, and which form the rational basis to effective treatment."

On reading the book we find that the author has discovered that, save in a small number of cases, the cause of all lateral curvature of the spine is due to, and the direct result of, certain faulty postures of the pelvis.

We are not aware that there is anything very novel in these facts. We were under the impression that obliquity of the pelvis was, and had been for many years, generally recognised as the prime factor in the production of lateral curves. If we are wrong, then this book cannot be too widely read.

Smeo of the methods of diagnosis, by aid of a camera, so arranged that a picture of the patient's back can be taken out of view of the doctor, are very ingenious, but they seem too complicated for everyday use, and, after all, can hardly ever be necessary.

C.P.B.C.

MANUAL OF DISEASES OF CHILDREN. By James Burnet, M.A., M.B., M.R.C.P. (Edin.). Edinburgh: E. & S. Livingstone. 1905. Price, 7s 6d.

The object of this book is to present a brief outline of the special features of disease in children to those who are beginning its study. It is not intended to replace the larger treatises on this subject; but students and practitioners even will often read a small book when a large book will be passed by. As an introduction to the diseases of children this book may be recommended. It is very pleasant and easy to read, but it should be looked upon as an introduction, since the more profound and difficult problems in this department of medicine are merely touched upon. There are a few points that we would call attention to with a view to alterations in subsequent editions. First, in the treatment of diphtheria the author recommends doses of 2000 or 4000 units of antitoxin, whereas all who have had special experience of this disease give much larger doses in severe cases. Moreover, the general description of diphtheria (diagnosis, various types, and general treatment) is insufficient. Diphtheria seems to us the most important of the diseases of early childhood, and *the* disease especially in which the average student of the present day is not sufficiently instructed; a disease easy enough to treat as a rule, if one is familiar with it. With regard to appendicitis, we find here nothing about the great value of leucocyte counts, both in diagnosis and as an assistance to the physician in deciding when to call in a surgeon. Our author seems to have a wholesome dread of surgical interference in this complaint. The book is illustrated by some unusually good photographic plates, although one does not see that plate I is either useful or ornamental.

J.M.G.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 21st AUGUST, 1905.

PLAGUE IN INDIA AND AUSTRALIA.

For some years past we have had outbreaks of plague in different parts of Australia, but, fortunately, none of these have attained very serious dimensions, and we have not had occasion to face such an enormous mortality as has attended this disease in India in recent times. The climate and the conditions and habits of life are of course very different, and these factors may perhaps account for some divergence in the views held by the authorities in these two countries.

Some extremely interesting facts bearing upon the prevalence and epidemiology of plague are recorded in the *Lancet* of June 10th by Dr. Elliott, late special plague officer to the Bombay Government. In this position Dr. Elliott has had to do with several thousand of cases of plague, and has made some observations which, if verified, are of the utmost importance. As regards the plague bacillus, he has satisfied himself that this does at times present motility, this feature being specially noteworthy in the organisms obtained from fulminant cases which die in 24 hours. As regards the susceptibility of animals to the disease he places rats first, then guinea-pigs; cats also are susceptible and can convey the disease to human beings.

He raises an important question as to the behaviour of the bacilli during quiescence: "Does the plague bacillus exist as a saprophytic microbe as well as a parasitical one, and will this account for recrudescence?" And in support of a positive answer to this he quotes the following experiment. A box was filled with soil removed from the floor of a hut in which a fatal case of plague had occurred; this was left untouched for a month, then four healthy rats were placed in it, and in the course of four weeks all had died from plague. This experiment, though not conclusive, is, to say the least of it, suggestive. As regards the channels of infection, Dr. Elliott considers that the bacillus may gain an entrance to the system by the direct contact of plague-infected materials with parts of the body where the skin is delicate and liable to abrasions, or through the respiratory system in the case of pneumonic plague. He is also satisfied that patients may contract the disease through the alimentary system—that is, by means of contaminated food, and, in support of this, mentions the fact that in several patients who had died within 24 hours from the time of the attack, and in whom the only symptom was an acute diarrhœa, post-mortem examination has revealed a marked infection of the solitary glands of the small intestine, and plague bacilli have been found in these structures and in the adjacent mesenteric glands. These channels of infection give rise to three types of the disease—the bubonic, the pneumonic, and the alimentary, either of which may take on an acute septicæmic form. From the virulent and rapid rise of the epidemic till its height and gradual decline one is forced to the conclusion that the plague bacillus in its passage from man to man probably undergoes a gradual attenuation, and ultimately assumes a more chronic form. Dr. Elliott thus considers that there are two forms of bacilli, an acute and a chronic. The first give rise to the three types of the disease already referred to, while the latter continues the disease from one epidemic to another.

Of special interest to us in Australia is the divergence of the views expressed as to the part played by rats in the spread of the epidemic. Dr. **Elliott** expresses no opinion at present as to how plague is conveyed from man to man ; but " as regards the relationship of rats and man there is no authentic evidence to show that previous to the first outbreak of the disease in a village any deaths among rats were noted in the village, or that any dead rats were found, but on the recurrence of the epidemic in a village dead rats were found before human beings were attacked." He has records of some 20 villages which he visited immediately he heard of the first case of plague. In none of these had any dead rats been seen, and in each case the source of infection was traced to other villages. These statements are hardly in accord with our experience in Australia, since on every occasion before an outbreak of plague in any district there has been evidence of the disease having first attacked the rats, this being manifested by the discovery of dead rats infected with plague. It is clear from our experience here that there is very definite and close relationship between the disease in rats and the appearance of cases in human beings. It is important, however, to bear in mind, in view of the observations of Dr. **Elliott** above recorded, that there is a possibility of infection by other channels , and if it be true that the plague bacillus is not only parasitic but also saprophytic, then this may possibly account for the recrudescence of the disease in districts in which the evidence of the existence of the disease in rats is equivocal.

THE MODERN VIEW OF INSANITY AND ITS TREATMENT.

Perhaps in no department of medicine has there been so complete a change of attitude on the part of the profession as in the treatment of the insane. While 100 years ago the treatment of the unfortunate subjects of mental disease was nothing short of barbarous, to-day this class of patient has become more and more the subject of careful study and scientific treatment.

The clinical study of the various manifestations of mental disorders, along with a careful macroscopic and microscopic investigation of the brain, has enabled us to some extent correlate structure and function. We know now that disorder of the mind is a manifestation of some derangement of the function of the complex nervous structure of the brain. Observation of the various mental states which are met with in different forms of toxæmia leads us to infer that in some of the types of acute insanity there is some toxic influence at work upon the higher cerebral centres which leads to the derangement of function or to a disassociation of neurones ordinarily correlated in the normal mental processes.

From this point of view the treatment of the insane person is directed not merely towards influencing his psychical state, but also to the improvement of the general physical health and to the removal of toxic influences, whether of external origin or arising from auto-intoxication. It is, of course, true that in many cases the disorder has passed the stage of mere derangement of function and has become an organic disease of cerebral nerve cells and tracts, and although some improvement is effected in the physical condition of the patient, the mental state remains permanently one of disorder. That much can be done, however, in curing early cases of mental derangement which are not dependent upon an inherited or acquired cerebral degeneration is evidenced by the good results which have been attained in the treatment of this class of patient in special institutions or special wards attached to general hospitals, and is also proved by the increasing percentage of patients discharged cured from the asylums for the insane.

This subject was referred to by Sir J. Batty Tuke in his presidential address to the Neurological Society of the United Kingdom, in the course of which he pleaded for an alteration in the lunacy laws, so that patients suffering from mental disorder could be treated on modern lines, instead of being at once removed to an asylum for the insane. We cannot help feeling that the present system of herding together hundreds of patients suffering from mental disease in large asylums, with three or four medical officers, is not conducive to the best interests of these patients. Many, no doubt, are cured and a good many improved, but prevention is better than cure; and if any system can be adopted which will prevent a large number of patients who are now committed to asylums for the insane from becoming hopeless lunatics it would be highly economical in more ways than one. It is obviously impossible for each patient to receive adequate treatment under present conditions; but the establishment of suitable institutions for the treatment of mental disorders to which patients might be sent without the necessity of their being certified as insane would, judging by the experience of other countries, lead to the diminution in the number of the chronic insane population, and so relieve the State of a large part of the present heavy expenditure incurred in building and maintaining large asylums. Public opinion must, however, be educated before we can hope to see much material alteration in our present methods of dealing with the insane, at any rate for several years to come.

THE MONTH.

The Australasian Medical Congress.

The seventh session of the Australasian Medical Congress will be held in Adelaide from September the 4th to the 9th. All medical men wishing to become members of the Congress should *at once* forward their names to the secretaries in the different States, at the same time notifying them whether they intend to visit Adelaide and whether they will be accompanied by their wives. In another column will be found a programme of the work of the Congress and of the entertainments. Members who have not yet forwarded copies or synopses of their papers are requested to send them without delay to the secretaries of the sections. We are requested to state that members who have not yet secured accommodation should communicate directly with Dr. J. B. Gunson, of Adelaide, who will assist them in securing rooms.

Sir Philip Sydney Jones Portrait Fund.

We desire to draw attention to the circular which has been published by the Council of the New South Wales Branch of the British Medical Association, stating that "by way of expressing the great and general satisfaction with which the honour recently conferred by the King upon Dr. Sydney Jones, of this city, in creating him Knight Bachelor is regarded by the members of his own profession, it has been proposed by the Council of this Association that a portrait in oils of himself be presented to Sir Philip Sydney Jones, M.D., F.R.C.S., with a request that it may be hung in the great hall of the University of Sydney, of which institution he is vice-chancellor." We hope that members of the profession will respond liberally to provide the necessary funds for this object, and that they will forward their subscriptions as soon as possible to Dr. W. H. Crago, hon. treasurer of the Branch, so that the artist can be commissioned at once.

Adulterated Bread.

In the course of an address before the Sydney Ladies' Sanitary Association, Mr. Hamlet Government analyst, made some rather strong remarks about the character of the bread supplied in the metropolis. He reviewed the adulteration of bread with alum, sulphate of copper, darnel seeds, damaged flour, ergotised grain, moulds and bacteria introduced through the use of polluted water, and explained that the adulteration by excess of water and the intentional omission of salt and natural phosphates was on a par with the adulteration of milk by the addition of water. He said that the conditions giving rise to bad bread were often brought about through bad flour or by the use of bad water, or by false ferments brought into the dough through ignorance or carelessness. Good bread, according to Mr. Hamlet, should contain 7 per cent. of proteids, a minimum of acidity, with not more than 4 per cent. of water and a sufficiency of salt and phosphate of lime; but the desire of the public for a white loaf was often carried to excess to the impoverishment of the bread, and that millers and bakers only tried to supply what the public demanded.

An Epileptic Colony in Victoria.

Modern experience of the treatment of epilepsy in Europe and America tends to show that the best results are obtained when patients suffering from this disease are as far as possible kept at employment in the open air. This is specially the case when the patients show signs of mental deterioration. The experience of those in charge of the epileptic colonies in England and America shows that these patients when kept indoors in consequence of inclemency of the weather, or other causes, have a larger number of attacks than when they are occupied all day in the open air. We are glad to note that this method of dealing with chronic epileptics is receiving attention in Victoria. At a meeting convened by Lady Talbot at State Government House, Melbourne, last month, his Excellency Sir Reginald Talbot said that the matter of establishing an epileptic colony had been started two years ago, and that Lady Talbot and himself being convinced of the inadequate provision at present in existence for these unfortunate sufferers, were determined to do all they could to further the scheme. He stated that the Government had liberally undertaken to give a site and £3000, provided £2000 were raised by subscriptions. There has been already a generous response to the appeal for subscriptions, and there seems every probability of this institution being established before long. If so, we shall be very pleased to congratulate Victoria on having taken the lead in Australasia in providing for the treatment of epileptics on modern lines.

Telephone Mouthpieces and the Transmission of Disease.

Since the introduction of the telephone, fears have been entertained by some people that the frequent use of the telephone mouthpieces by many individuals might possibly be a means of transmitting infectious diseases. This matter has engaged the attention of Dr. Collingridge, the medical officer of health to the city of London, and a number of mouthpieces from public telephones were removed and careful bacteriological examination made of the moisture and dust removed from their interior. It is satisfactory to learn from Dr. Collingridge's report that no traces of the organisms of tuberculosis or diphtheria were found, and he expresses his conviction that if the mouthpieces are kept clean there is no risk of their becoming a source of danger of transmitting these diseases.

Secret Commissions to Medical Men.

In introducing the second reading of the Secret Commissions Prohibition Bill into the Victorian Legislative Assembly on July 25th, Mr. Mackey is reported to have said that in England many medical men who give prescriptions have an arrangement with certain chemists that they will recommend their clients to purchase their medicines from these chemists, and that the chemists pay from 25 per cent. to 50 per cent. commission on all purchases to the medical men. Mr. Mackey said, further, that this practice was said to prevail here also. Dr. W. B. Vance, the honorary secretary of the Victorian Branch of the British Medical Association, in a letter to the Melbourne *Argus*, gave this statement an unqualified denial, and asked Mr. Mackey to produce evidence in support of this statement. The Council of the Victorian Medical Defence Association, of which Mr. G. A. Syme is president, have also asked to be informed of any specific instance which Mr. Mackey can produce in support of his assertion. According to a statement in the *Chemist and Druggist of Australasia*, some of the leading firms of chemists in Melbourne also deny the existence of any such system of paying secret commissions. In view of these definite statements, we think that Mr. Mackey should furnish the information asked for, or else publicly apologise in the House for the insult he has offered to the medical profession.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

The regular monthly meeting was held at the Chamber of Commerce, Newcastle, on Friday, July 28th, at 8.30 p.m. Present: Dr. J. L. Beeston, president, in the chair, and about 35 members.

The minutes of the last meeting were read and confirmed.

The **President** announced the election of the following members:—Dr. A. Neumann, Wilcannia; Dr. S. A. Smith, Killara; Dr. W. H. Lang, Corowa; Dr. V. Benjafield, Lambton; Dr. John Costelloe, Hillgrove; Dr. R. W. Crooke, Gunnedah; and the following nomination for election: Dr. A. E. Finckh, Sydney Hospital.

Dr. G. E. **Rennie** said that as this was the first meeting of the Branch since Dr. Sydney Jones had received the honour of knighthood, he begged to move the following resolution:—"That this Branch of the British Medical Association desires to express its heartiest congratulations to Sir Philip Sydney Jones upon the honour conferred upon him by his Majesty the King."

Dr. **Hankins** seconded the resolution, and at the suggestion of the **President** it was carried unanimously with acclamation.

Dr. **Eames** exhibited a child, 2 years of age, who had been born blind. For the first 18 months no relief could be obtained for the pain or sleeplessness except by the administration of large doses of opium. At present the child was in good health, and had recently developed a taste for music, and it was astonishing what the child could do in piano playing.

Dr. **Antill Pockley** stated that he had seen this patient in consultation some 18 months ago, and the diagnosis lay between glioma and pseudo-glioma. According to the text-books, the diagnosis between these condition was easy, and so it was generally; but in this case the diagnosis was very difficult. The tension was not diminished and the signs of inflammation were not marked, and there was a history of another child in the family having died of glioma. He diagnosed the case as one of pseudo-glioma, and the present condition of the child showed that this diagnosis was correct.

Dr. G. E. **Rennie** read a paper on "Some Points in the Treatment of Chronic Nerve Disease." (See page 359.)

Dr. J. A. **Dick** asked in what class of case Dr. Rennie would advocate the administration of potassium iodide and mercury being limited to six weeks, as this appeared to be a much shorter period than that usually suggested.

Dr. **Rennie** replied that in cases of certain tertiary syphilitic lesions, such as gummata or arterial disease, he considered that an *efficient* dosage of these remedies for six weeks to two months would effect all that could be hoped for, since it seemed sometimes as if a certain amount of tolerance was established, and some new lesions had developed when these remedies were being administered over a prolonged period.

Dr. H. L. **Maitland** read "Notes on Some Surgical Cases Presenting Special Points of Interest." (See page 367.)

The **President** said there were two or three points in Dr. Maitland's paper on which he wished to make some remarks. With regard to Whitehead's operation on the knee-joint, he did not see the advantage of dividing the patella in preference to cutting through the patellar tendon and reflecting it up. He thought that by the latter proceeding the surgeon could get as good a view of the interior of the joint, and the division of the patella seemed to him a very radical procedure. With regard to the use of Murphy's button, and Dr. Maitland's experience of finding it in one case after four months, he would like to ask him if he had ever failed to find it at all? He had known of one case in Newcastle in which this instrument had been used, but it had never been found, and the patient did not appear to be any the worse for it. He thought that the use of Murphy's button was a distinct advantage to the patient, inasmuch as the operation could be performed much more quickly, and the union of the two ends of the divided intestine could be secured more effectively. With regard to foreign bodies in the appendix, his experience agreed with Dr. Maitland's. He thought it was exceptionally rare to find a foreign body lodged there. He did not refer to stercoliths, as these were really the normal contents. He had only once found a foreign body in the appendix, and that was a hair from a toothbrush. He thought the idea that the appendix was a sort of trap to catch foreign bodies was erroneous.

Dr. R. **Steer Bowker** said he remembered Dr. Maitland's case of gastro-enteroplasty. He had himself done a similar case a short time previously. He had first performed gastroplasty, and the patient had relief from her symptoms for some time; but a return of them some time later rendered further operation necessary, and he did an anterior gastro-enterostomy, using Murphy's button. With regard to Murphy's button, he had used it frequently and had had no trouble with it; occasionally it had not reappeared, but no harm ensued to the patient. With regard to foreign bodies in the appendix, when they remembered the large number of foreign bodies ingested, it was clear that if they did get into the appendix the latter must get rid of them, and probably it did so by peristalsis. In the fœtal type of appendix and cæcum, foreign bodies could not get into the appendix so easily, and if they did get in, the folds of the mucous membrane prevented them being removed by peristalsis. The patient on whom the Whitehead's operation on the knee-joint had been performed had done splendidly. He thought the idea was to remove the patella, and not to leave it to be a source of infection.

Dr. **Nickson** thought they were much indebted to Dr. Maitland for his paper, but he did not know whether they ought to thank him for adding a further difficulty to the diagnosis of renal calculus. The diagnosis of renal stone was difficult enough as it was. With regard to Murphy's button, the patient to whom the president had referred did not appear any the worse for retaining it. He was disposed to agree with Dr. Beeston that Whitehead's operation appeared a very serious and radical one, and he thought efficient drainage could be secured by less radical measures.

Dr. **Brady** pointed out that in his experience it was not infrequent to find a small chronic fistula just in front of the ear, from which a small amount of discharge with an unpleasant smell could be squeezed. These were of no importance, and he did not advise any interference in these cases.

Dr. **Maitland**, in answer to Dr. Beeston, said that the reasons that actuated him in sawing through the patella in preference to dividing the ligamentum patellæ were:—1. Better access to the joint cavity was attained. 2. That as an ankylosed joint must inevitably follow, the patella was of no use. 3. If the ligamentum patellæ was divided no union of its divided ends could be expected, and since the patella was a sesamoid bone in a muscle tendon as far as function was concerned, division of the patella differed in no way from division of the ligamentum patellæ, the function in both cases disappearing. Acute streptococcal infection of the knee-joint was a desperate condition, and meant one of three things—the death of the patient, amputation, or recovery with a stiff limb; therefore everything should be sacrificed to attain the stiff limb, and this is best done by adopting Whitehead's suggestions.

In answer to Dr. Nickson, Dr. **Maitland** said that he agreed that Murphy's button was an excellent instrument, but that, having a number of times tried both, he thought that suturing in two layers, using a through-and-through catgut hæmostatic layer with an outer continuous Cushing silk serous suture, was the better method. He could not quite eliminate from his mind that in Murphy's button you had a foreign body of some size left in the gut that might cause trouble. Dr. Maitland agreed with Dr. Bowker that the button frequently remained but caused no symptoms. He thought that it was less likely to remain if two considerations were observed, viz., (1) close the button moderately tightly so as to cut off the blood supply of that portion of the gut included in the button, and (2) take care that the heavy portion of the button was in the distal or lower segment of the gut.

Dr. R. **Steer Bowker** exhibited a specimen of a vermiform appendix, which he had removed from the sac of a strangulated hernia.

The **President** drew attention to the circular which had been issued *re* the proposed oil painting of Sir Philip Sydney Jones, and hoped there would be a good response.

At the close of the meeting the Sydney members were entertained at supper by the local members at the Newcastle Club. A very pleasant hour was thus spent.

The **President** proposed the toast of "The King."

He then proposed the toast of "The Visitors," and in so doing referred to the pleasure it gave them to once again have a meeting of the Branch in Newcastle, and hoped that this would become an annual event.

Dr. **Antill Pockley**, vice-president, in replying to the toast, said he regretted that a larger number of Sydney men had not responded to the invitation to Newcastle, and he wished, on behalf of his friends, to thank them for their hospitality and good wishes.

Council Meeting.

The Council met at the Association rooms on Tuesday, August 8th, 1905. Present: Drs. Pockley, Hinder, Jarvie Hood, Hankins, Crago, Abbott, Dick, Maitland, MacCormick, and Worrall.

The minutes of the previous meeting were read and confirmed.

Letter from Dr. Andrews, of Albury, with reference to starting a sub-branch at Albury. Matter left in the hands of the hon. secretary and hon. treasurer to inquire into.

Letter from Armidale, stating that Dr. W. H. Harris was meeting Dr. Clune in practice. Resolved—That Dr. W. H. Harris be asked for an explanation.

Letter was read from Dr. Woolfovitch, of Redfern, stating that he intended to resign his connection with the People's Prudential Benefit Society from November next. Resolved—That Dr. Woolfovitch be informed that there is no prospect of his being elected a member of the Branch at the present time.

Certain advertisements of Dr. W. E. Warren were submitted to the meeting. Resolved that the advertisements be reproduced in the *A.M. Gazette* without comment.

Letter was read with reference to the issue of appointment cards by a city member, and enclosing a card. Resolved—That the member be asked for an explanation with reference to the circulation of the appointment card.

The hon. treasurer reported the following credit balances:—General account, £596 16s 4d; *Gazette* account, £122 13s 9d.

Resolved—That the next Council meeting be held on Tuesday, September 19.

Victoria.

The usual monthly meeting was held on Wednesday, July 19th; the president, Dr. H. W. Bryant, in the chair.

Dr. A. V. M. **Anderson** read notes on "Two Interesting Brain Cases." (See page 363.)

The **President** thanked Dr. Anderson on behalf of the Branch for his interesting paper. Diagnosis of these obscure brain cases was always difficult, and their discussion of great interest. A point of great interest in the first case was the absence of improvement under specific treatment. With regard to the second case, he thought it a pity that the patient had not been trephined at an early stage. It was remarkable that no source of infection could be discovered.

Dr. **O'Neill** regretted that the pathologist had not been allowed to examine all the organs of the body in view of the possibility of other syphilitic lesions being present.

Dr. **Anderson**, in reply, said that he also regretted that no operation had been performed in the second case; but the fact that it might have been a case of frontal sinus empyema had not been overlooked; what weighed with him against it being the fact that the swelling appeared first on one side, discharged and apparently cleared up, and did exactly the same thing on the other side. He thanked members for their appreciatory remarks.

Dr. **Cuscaden** read notes on a "Case of Eclamptic Convulsions occurring Fourteen Days after Confinement." (See page 382.)

Dr. **Bryant** said that the case seemed to him more like one of epilepsy. He would like to know if there had been any history of fits in childhood. He also had had some experience of the treatment of eclampsia by means of thyroid extract. He thought, however, that transfusion and proper diet were of extreme value.

Dr. **Anderson** said that his experience was that patients with eclampsia suffered from chronic renal disease in a large number of cases. He recalled a case where for a number of years a woman, after the birth of her first child, suffered from convulsions, which were supposed to be epileptic. Ultimately, however, in one of her confinements she died from eclampsia. He had no doubt that in Dr. Cuscaden's case the fits were not epileptic but eclamptic.

Dr. **Black** said that cases had been reported where eclampsia occurred several weeks after confinement, but in these cases there was always a suspicion that it was not true eclampsia. He would like to know the condition of the urine during pregnancy and after the confinement in Dr. Cuscaden's case.

Dr. **Cuscaden**, in reply, said that one point in favour of its being eclampsia was the fact that the temperature was raised to 102°. This practically eliminated epilepsy, as it was a well-known fact that the temperature was not raised in that disease. He regretted that he was unable to afford any information as to the state of the urine during pregnancy; but during the attacks the albumin was increased, and it diminished after them. The urine was now quite free from albumin. The woman was naturally very healthy, and had never had any fits in childhood. His dose of thyroid extract was 5 gr. three or four times a day. In full-blooded people he was greatly in favour of bleeding, followed, if necessary, by transfusion. He thanked the members for the great interest they had exhibited in these few notes of a condition which to him was always a source of very great anxiety.

Queensland.

A General meeting of the Branch was held on Friday, August 4th. Seventeen members and two visitors attended.

The minutes having been read and approved, and the name of a candidate proposed for election,

Dr. Tyrie showed a dissection of the head of a hammer-headed shark, showing the evolution of its elongated optic nerve and muscles.

Dr. Tyrie read his paper on "Immunity," and a short discussion followed in which Drs. Robertson, Thomson, Turner, Wield and Halford took part, and Dr. Tyrie replied.

Dr. Thompson, seconded by Dr. Orr, proposed—"That the Branch should show its appreciation of what had been done for the profession by the late Dr. Kevin Izod O'Doherty." He gave a brief account of Dr. O'Doherty's career, and suggested that the method chosen should be such as would aid his widow and daughter, who had been left in very poor circumstances.

A resolution that the secretary should notify members that he was willing to receive subscriptions for that purpose was then carried unanimously.

South Australia.

The monthly meeting was held at 8 p.m. at the University on July 27th, 1905. The newly-elected president (Dr. A. A. Lendon) presided for the first time in this his second term of office over a large attendance of members and several medical visitors.

Minutes were taken as read, and signed.

The President reported that he had sent a telegram of congratulation to Sir Philip Sydney Jones, in the name of the South Australian Branch, and had received an acknowledgment.

Exhibits were shown as follows:—

Dr. Lendon showed a boy suffering from specific disease of bone, with skiagrams of the case. Also (1) a stone removed by litholapaxy, (2) a stone removed from the kidney of a man who had been explored without success some 21 years previously.

Dr. Newland showed several renal calculi removed by operations.

Dr. Swift exhibited a boy, *æt.* 9, with an affection of the glands in the groin and extending into the iliac fossa, probably sarcomatous. Two operations had been performed, but the trouble had recurred.

Dr. Swift also showed a boy, *æt.* 9, who had syphilitic synovitis of both knee-joints. Improvement very marked under the biniodide of mercury and iron.

Drs. Newland and Gunson showed some skiagraphs.

Prof. Watson demonstrated several pathological specimens.

Dr. Marten read very interesting notes on his experiences of English hospitals, specially the arrangements in the newest operating theatres, etc. He was heartily thanked at the end of his reading.

Dr. W. J. Hayward read notes on a case of "Acute Ulcerative Endocarditis," and this led to an interesting discussion in which several members took part.

Dr. Reissmann's paper on a case of "Leucocythæmia treated by X-rays" (p. 379) was made even more interesting by his carefully prepared blood films and charts, showing rise and fall of percentage of red and white blood cells, etc., and urinalysis.

Dr. Reissmann showed the patient (and various blood slides from same) who is the subjct of his paper.

REPORTS OF OTHER SOCIETIES.

Medical Society of Victoria.

The ordinary monthly meeting was held in the hall of the Society on August 2nd; the president, Dr. A. J. Wood, in the chair.

Dr. W. Kent Hughes showed a case of "Congenital Absence of the Radius." The etiology of the condition, he said, was obscure; probably, in his opinion, the condition was one of pressure atrophy.

Dr. W. Finch Noyes exhibited a case of "Advanced Molluscum Fibrosum," the tumours numbering several hundreds, and varying in size from a pin's head to a walnut.

The discussion on Dr. Stawell's paper on "Clinical Observations of Blood Pressure" was opened by Dr. J. Jamieson. It must not be thought that now that they had instruments of precison for the measurement of arterial tension no realisation of the occurrence of high tension in cases of heart failure was possible in former days. As long as 13 years ago he had published an article on "Cases in which Digitalis Disagreed," and for many years earlier still had insisted upon the occurrence of such cases. He quoted a case of heart failure with a blood pressure of 198 m.m., in which trinitrin reduced the pressure to 170 m.m., with great improvement to the condition. The relation between heart failure and arterial tension was of great importance. Dr. Stawell had stated that "In the whole range of 'valvular heart cases,' from childhood to middle age, when the heart begins to fail, there is a rise of arterial blood pressure." Did he understand Dr. Stawell to mean that the heart failure was the antecedent factor? Was it not rather that in most cases the heart failed because of the increased tension in the arterial system? There was also the relation between cardiac hypertrophy and high tension to be considered. Either condition might exist, at least temporarily, without the other, or both may be present. The cause of high tension must be always that more blood is passing through the heart than it can comfortably dispose of. A most interesting condition was that of high tension in cases of mitral stenosis. This was only understandable where incompetence co-existed. Cases were also recorded in which cirrhosis of the kidneys existed with mitral stenosis. As to the cause of high tension being CO_2 or other toxic material circulating in the blood, he considered the former inadequate. For example, in congenital disease of the heart there was, as a rule, long-continued cyanosis but low arterial tension. In pneumonia, also, the great danger was the low tension. Dr. Stawell had said that in cases of advanced arterio-sclerosis relaxants failed to lower the tension and sometimes raised it. This could only be brought about by an increase in the heart's action. In pneumonia, as had been mentioned, there was persistent low arterial tension. In the "French System of Medicine," digitalis in enormous doses was advocated, an infusion made from as much as 8 grammes of the leaf being given daily. He had first used large doses of digitalis in pneumonia some two years ago in the cases of two alcoholics with bad prognosis. They were vastly benefited, and recovered. He now gave doses up to dr. 1 of the tincture. Even with these doses the arterial tension was not invariably increased.

Professor Osborne said that clinically several of the factors, such as the viscosity of the blood, etc., regulating arterial tension, might be neglected. There were, however, two muscular factors, one pushing the blood in and the other keeping the blood in. The latter was too much neglected. The flow of blood through the arteries had often been likened to the flow of a fluid through an elastic tube. This could never be a true simile, as there was always an active muscular grip on the contents of the arteries. A length of artery outside the body could be made to respond to various drugs, heat and cold, etc., like a living thing. He avowed himself an advocate of the theory of CO_2 being the main factor in causing increased arterial tension. There was a constant pressure of CO_2 in the lungs; a pressure constant for the individual varying between narrow limits in different individuals. This mechanism was most sensitive. If the standard were ·04 of an atmosphere, a rise to ·06 of an atmosphere would double the respiratory ventilation. If the standard fell, as after increased voluntary respiration, there was apnœa. In a condition of hyperpnœa, CO_2 must be at work, as the other possible cause, deficiency of oxygen, could as a rule be neglected.

Dr. John Cooke discussed the arterial tension from the point of view of the surgeon, including the effects of anæsthesia and the shock of extensive abdominal operations. From a few observations made, he found that chloroform lowered the blood pressure about 8 m.m.; either raised it about 12 m.m., and a mixture of equal parts raised it about 5 m.m. In abdominal operations he advised swabbing the peritoneum with Barker's solution to minimise shock. He detailed a case of almost complete gastrectomy and pancreatectomy in which observations had been made during the operation. Before operation, blood pressure was 130 m.m.; after removal of the stomach it was still 130 m.m.; on removal of pancreas, 100 m.m. Some hæmorrhage occurred, and blood pressure fell to 50 m.m. Two pints of saline were transfused, and blood pressure rose to 110 m.m. It was 100 m.m. at the close of the operation. Next day it fell to 80 m.m., and rose to 140 after hypodermic injections of strychnine, adrenalin and digitalis.

Dr. G. T. Howard quoted the case of a man, aged 45, who had a blood pressure of over 300 m.m. There was tubular nephritis. He was cyanotic, and venesection was performed five or six times, with temporary relief. Relaxants were freely used. His optimum pressure was about 240 m.m. The treatment of early arterio-sclerosis was mainly one of diet, especially in the direction of restricting nitrogenous food; mineral waters and iodides were useful.

Dr. McCallum spoke of the action of chlorides in raising the blood pressure. In arterio-sclerosis there was hydræmia, with consequently urine of low specific gravity. The hydræmia caused a degeneration of the cells of the intima, especially of the end arteries, *e.g.*, in the kidneys and retinæ. Potass. iodid. seemed to act by lessening the amount of chlorides in the blood. There was an antagonism between the internal secretions of the thyroid gland and adrenals. Dropsy in chronic nephritis was not in the dependent parts, but depended upon the degeneration of the vessels. It was lessened by thyroid extract and a chloride free diet.

Dr. W. Ostermeyer considered that the term "heart failure" was too extensively used. The generic term should be "circulatory failure." The condition in shock or hæmorrhage was often spoken of as heart failure, which was purely a secondary condition. In arterio-sclerosis there were three conditions: hypertrophy of the heart, increased arterial tension, and an increased secretion of urine. We did not dream of trying to influence the first and last of these conditions; why then try to lessen the arterial tension? Surely it was as much a compensatory condition as the cardiac hypertrophy. The use of relaxants should be safeguarded by an estimation of the urinary solids excreted in the 24 hours. It was not sufficient to know that the subjective symptoms, headache, etc., were relieved.

Dr. Stawell, in reply, thanked members for the interest they had taken in his paper and address. He did not as yet dare to claim too much from the use of Martin's manometer. It, of course, only estimated the systolic pressure. We often wanted a method of estimating the diastolic pressure, as there was often great disproportion between the two, *e.g.*, in aortic regurgitation. He claimed, however, that its use was a great aid to a more reasonable classification. From the therapeutical point of view it more often warned one what not to do, rather than showed one what to do. There were many problems which required elucidation before the whole question of the treatment of cardiac conditions could be placed upon a sure and rational foundation.

Dr. Officer showed a portable arrangement of Martin's manometer.

Dr. W. A. Wood exhibited a specimen of hydatidiform mole.

The Border Medical Association.

A meeting of the Border Medical Association was held at Wangaratta, June 27th, 1905. Present: Dr. Harkin (president, in the chair), Dr. Andrews (vice-president), and Drs. Boyes, Henderson, Shuter, Shortt, Schlink, and Lang.

After reading the minutes and receiving the inward and confirming the outward correspondence, a long discussion took place over a circular received from the Western Medical Association. The further consideration of the matter was finally held over until a later meeting.

Dr. Boyes showed a child of three years old, a peculiar and apparently congenital dislocation of the distal phalanxes of both thumbs; and he also exhibited a patient from whom he had lately removed a large malignant tumour of the left breast, involving the loss of a great deal of skin. Healing had taken place with very little deformity or contraction. He also showed a case in which a very unusual amount of granulation had been removed from the upper lid by operation, and, so far, with no contraction.

Dr. Andrews then read a paper upon the "Action and Uses of Black Haw" (Viburnum prunifolium).

Drs. Shuter, Shortt, Schlink and the president took part in a discussion which followed. Each one of the speakers had a favourable verdict to give on the efficacy of the drug.

In the absence of Dr. Harris, a paper by him was read on "An Epidemic in the Rutherglen District resembling Dysentery." Since the paper was read, however, fresh developments have taken place demanding further investigation, and the publication of the paper is therefore held over to a later date.

A vote of thanks to Dr. **Harris** for his valuable and interesting paper was carried unanimously.

Before the meeting broke up, Dr. **Andrews** gave notice that he would move at the next meeting—"That the Association be amalgamated with the British Medical Association."

The next meeting will be held at Wangaratta in September.

The Royal Alexandra Hospital for Sick Children, Sydney.—The eleventh clinical afternoon was held at Valentine-lane on Friday, July 21st; Dr. Littlejohn presided. Dr. **Read** exhibited a child aged 10 years suffering from ichthyosis. Dr. **Wade** showed a boy aged 12 years suffering from a spreading suppurative eruption on the leg, which had resisted several kinds of local treatment. He also showed a child aged 5 years suffering from an infantile paralysis affecting one shoulder girdle. The question of nerve anastomosis was discussed. Dr. **Litchfield** exhibited some charts showing certain aspects of infantile mortality.

Australasian Medical Congress.

The following is the suggested working programme:—

Monday, Sept. 4.—10 a.m. Registration of Members at University.
11.30 a.m. General Business Meeting of Congress at University.
8.30 p.m. Inaugural Meeting and President's Address at the Elder Hall, University.

Tuesday, Sept. 5.—10 a.m. Address in Medicine by Dr. Colquhoun, President of the Section, in the Prince of Wales Theatre, University.
11 a.m. to 1 p.m. Primary Meetings of all Sections.
12 (noon). Section of Pathology: Address by Professor Welsh, President of the Section, on Cancer.

Wednesday, Sept. 6. 10 a.m. Address in Surgery by Mr. Fred Bird, President of the Section.
11 a.m. to 1 p.m. Sectional work.
12 (noon) Section of State Medicine: Address by Mr. Syme, President of the Section.

Thursday, Sept. 7.—10 a.m. to 1 p.m. Sectional work.

Friday, Sept. 8.—10 a.m. to 1 p.m. Sectional work.
12 (noon). Meeting of Military Naval and Military Medical Officers.
8 p.m. Popular Health Lecture by Dr. Armstrong, President of the Section of Public Health, in the Town Hall, under the auspices of the Mayor of Adelaide.

Saturday, Sept. 9.—9.30 a.m. Sectional Meetings.
10 a.m. Final General Meeting of Congress

A meeting will be arranged for Naval and Military Officers on a day to be fixed.

A meeting of Railway Medical Officers will take place in the Eye Section.

The following is the provisional programme of entertainments, etc.:—

Friday, Sept. 1.—Public Holiday. Races.

Saturday, Sept. 2.—Golf Matches.

Sunday Evening.—Cathedral Service, 6.45.

Monday, Sept. 4.—3 p.m. Mayoral Reception at Town Hall.
8.30 p.m. President's Address at Elder Hall, University.

Tuesday, Sept. 5.—3.30 p.m. Government House Garden Party.
Evening. Private Entertainments.

Wednesday, Sept. 6.—2 p.m. Excursion to National Park and Consumptive Homes. Afternoon Tea at Dr. T. K. Hamilton's.
2 30 p.m. Train for Dr. Morris's Launch Party to Outer Harbour Works and Quarantine Station.
9 p.m. President's Reception and Dance at the Elder Hall, University.

Thursday, Sept. 7.—Afternoon: Train at 2.15. Islington Workshops and Sewage Farm, by invitation from Mr. T. Roberts, Locomotive Engineer, and Mr. C. A. Bayer, Hydraulic Engineer.
Evening: Government House Dinner (30). Private Dinners.

Friday, Sept. 8.—Afternoon: Visit to Septic Tanks, Glenelg. Afternoon Tea at Mrs. Richard Smith's. Mrs. Newland's Garden Party.
Evening: Chancellor's Conversazione.

Saturday, Sept. 9.—11.30 a.m. Excursion to Mr. Brookman's Farm and Happy Valley Waterworks, under guidance of Mr. C. A. Bayer, Hydraulic Engineer; or
2 p.m. Drive to Mount Lofty. Afternoon Tea. Races at Morphettville. Golf Matches.

PRELIMINARY MEMORANDUM OF PAPERS.

The President's Address—Professor Stirling, C.M.G., F.R.S., F.R.C.S., M.D.

I.—Section of Medicine.

The Address on Medicine—Dr. Colquhoun, Dunedin.

1. Diet in Relation to Kidney Disease—Dr. G. E. Rennie.
2. Epilepsy: Is it Incurable?—Dr. G. E. Rennie.
3. The Mineral Waters of New Zealand.—Dr. Wohlmann.
4. The Principles of Chemistry and the Study of Medicine—Dr. Reissmann.
5. Is there such a Disease as Croup?—Dr. Harvey E. Astles.
6. Dengue—Dr. Pulleine.
7. Preliminary Communication on the No-Food Treatment of Typhoid Fever—Dr. Abramowski.
8. Pulmonary Tuberculosis—Dr. McIntyre Sinclair.
9. Anchylostomiasis—Dr. MacDonald, Ingham, Q.
10. The Nasal Treatment of Asthma—Dr. W. V. Robertson, Brisbane.
11. Anæmias of Children—Dr. C. Baxter Tyrie, Brisbane.
12. The Blood Count of Appendicitis—Dr. Wilton Love (Brisbane).
13. Sanatorium Treatment of Phthisis—Dr. Gault.
14. Radium and Electro Therapeutics on the Treatment of Skin Diseases—Dr. Herman Lawrence, Melbourne.
15. The Medical Treatment of Appendicitis—Dr. F. L. Benham.
16. A Fatal Case of Acute Pancreatitis—Dr. F. L. Benham.
17. Exhibits: "An X-Ray Bath"—Dr. Herman Lawrence.

II. Section of Surgery.

The Address in Surgery—Mr. F. Bird.

1. Prostatectomy—Dr. McCormick.
2. Prostatectomy—Dr. O'Hara.

3. Urinary Surgery—Dr. Hinder.
4. The Operative Treatment of Enlarged Prostate—Dr. H. L. Maitland, Sydney.
5. Cerebral Hydatids—Dr. McCormick.
6. Intestinal Anastomosis—Dr. McCormick.
7. Congenital Hypertrophic Stenosis of Pyloris—Dr. Alan Mackay.
8. Complications which may arise during or after Abdominal Operations—Dr. R. B. Duncan, Kyneton.
9. Radical Cure of Hernia—Mr. F. Bird.
10. Hernia—Dr. Hamilton Russell.
11. Appendicitis—Dr. Hinder.
12. Appendicitis—Dr. Long, Bendigo.
13. Observations on Appendicitis—Dr. Steer Bowker.
14. ————Dr. McCallum, Geelong.
15. ————Dr. Kelvington.
16. ————Dr. Scott, Ballarat.
17. ————Dr. Newman, Casterton.
18. ————Dr. Fiaschi.
19. Disease of Gall-Bladder—Dr. Hinder.
20 Operative Treatment of Moveable Kidney—Dr. W. J. Collins, Wellington.
21. Some Subjects in Pædiatrics—Dr. A. J. Turner, Brisbane.

III. Section of Gynæcology and Obstetrics.

1. The Opening Address of the President—Dr. W. S. Byrne, Brisbane.
2. Treatment of Pelvic Suppuration—Dr. Worrall.
3. Some Practical Points in Relation to Frequently Performed Operations in Gynæcology—Dr. Thring.
4. Some Causes of Pelvic Suppuration—Dr. Bothwell Adam.
5. The Toxæmia of Pregnancy—Dr. Batchelor.
6. Chorion Epithelioma—Dr. Batchelor.
7. The Evolution of Abdominal Operation and Incision—Dr. Foreman.

IV. Section of the Eye, Ear, and Throat.

1. Opening Addresses by the Presidents—Dr. Odillo Maher and Dr. Brady.

EYE.

1. Case Illustrating the Influence of Increased Intracranial Pressure as a Cause of Optic Neuritis—
2. Ocular Neuritis due to Lead—Dr. Lockhart Gibson.
3. Keratitis during and after Dengue—
4. Pseudo-Myopia and its Correction Papers Undescribed—Dr. Andrew Orr.
5. The Treatment of Trachoma with Cuprol—Dr. G. M. Scott.
6. One or Two Cases of Extraction of Foreign Bodies by Magnet—
7. The Difficulties of arriving at a Decision as to when an Injured Eye must be Excised.

EAR AND THROAT.

1. Exophthalmos in Relation to Disease in the Adjacent Bony Cavities—Dr. Wallace McKenzie.
2. Some Points in the Surgical Anatomy of the Temporal Bone, with Exhibits—Dr. Neil, Auckland.
   Paper by Dr. Quaife, Sydney.
   Certain Considerations Regarding Operations on the Mastoid—Dr. Arthur, Sydney.
   Discussion on Indications for the Radical Operation on the Mastoid, the Methods of its Performance, and the Value or otherwise of Epithelial Grafting.
   Discussion on the Diagnosis and Treatment of Suppuration in the Accessory Sinuses of the Nose.

V.—Section of Pathology, Anatomy, Physiology, and Therapeutics.

1. Address by the President—Professor Welsh.
2. Paper on Deciduoma Malignum—Professor Welsh.
3. Leucocythæmia—Dr. Reissmann.
4. Human Parasites—Dr. Angas Johnson.
5. Exhibits with Lantern—Dr. J. Thomson.

VI.—Section of Public Health.

1. Public Lecture by Dr. Armstrong, Sydney.
2. School Hygiene—Dr. Elkington, Hobart.
3. The Relation of the State to Phthisis—Dr. Mason, Wellington.
4. Twenty Years of Sanitary Progress in Melbourne—Dr. Jamieson.
5. Notification of Phthisis—Dr. Borthwick.
6. The Sanitation of Australian Cities—Dr. Borthwick.
7. A Comparative Review of Public Health Legislation in Australia and New Zealand—Dr. Borthwick.
8. Exhibits—
   (*a*) Cultures of Typical Yeasts and Bacteria—Dr. Tidswell.
   (*b*) Photomicrographs of Pathogenic Bacteria—Dr. Tidswell.
   (*c*) Photomicrographs of Leprosy—Dr. Tidswell.

VII.—State Medicine and Medical Ethics.

1. Opening Address by the President—Mr. G. A. Syme.
2. Paper by Dr. Bryant, Melbourne.
   The Ethical Relations between Town and Country Practitioners—Dr. Frank Allwork.
   Hospital Abuse—Dr. Bryant, Victoria.
3. Paying Patients in Public Hospitals—Dr. Moore.
4. The Rôle of Provident Medical Associations—Dr. G. E. Rennie.

OBITUARY.

Kevin Izod O'Doherty, F.R.C.S. (Irel.), L. *et* L. Med. K.Q.C.P.I., 1859, Brisbane.

By the death of Dr. K. I. O'Doherty we have lost one of the pioneers of the medical profession in Queensland. Having obtained the degrees of F.R.C.S.I. in 1857, and L.K.Q.C.P.I. in 1859, he registered the fourteenth name on the Queensland Register on March 3rd, 1862. In his prime he was known as a dashing and original surgeon, and used to get good results from at least two operations which he claimed as his own, but never published. One of these was the removal of the head of the femur in intra-capsular fractures in order to improve the usefulness of the limb; the other a method of exploring the back of the ankle-joint, by incising behind the malleoli, somewhat as in Syme's operation, sawing obliquely through the os calcis just in front of the insertion of the tendo achilles, and lifting up the flap so formed. He had some success, too, in ovariotomy, as many as thirty years ago. Personally, he was a warm-hearted, generous, impulsive Irishman, most popular among his professional brethren, and a favourite in every class of society. Politically, he represented Queensland both in the Lower and the Upper House, and in 1885-86, during a visit home, he was member for Meath in the House of Commons. For the last ten years he did little in the practice of his profession, and has lately lived in retirement in one of the suburbs of Brisbane.

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

The Early Diagnosis of Tuberculosis.

In *American Medicine*, June 17th, 1905, is the text of the report dealing with this question presented at the third annual meeting of the National Association for the Prevention and Study of Tuberculosis, held in Washington on May 18th, 1905,. The report states that while the well-developed stage of pulmonary tuberculosis offers no difficulty in diagnosis, in the true incipient stages of the malady, which are characterised anatomically by the formation of few isolated tubercles in lymph glands or lung tissue, no symptoms, or only vague general symptoms, exist on which to base a positive diagnosis of the disease. Investigations have shown that such infections are of very frequent occurrence, and that only in a comparatively small percentage of these cases does the disease develop further; but this percentage is sufficiently large to make the diagnosis of tuberculosis in the earliest stages of the utmost importance. The discovery of the tubercle bacillus in the sputum is a diagnostic means of indisputable accuracy; but since tubercle bacilli can only appear in the sputum after the breaking down of a tubercle situated near a bronchiole, it is clear that tuberculous changes must occur previous to the appearance of the bacilli in the sputum. Hence the adoption of the term " closed " to designate this stage, in opposition to " open "—that is, with the bacilli found in the sputum. The physician who declines to make a positive diagnosis of pulmonary tuberculosis on account of the absence of the bacilli in the sputum assumes a very grave responsibility, and whenever certain signs and symptoms justify a suspicion of the disease it is wise to instruct the patient carefully as to his mode of life and keep him under close observation. A close and careful investigation of constitutional as well as local manifestations will often reveal sufficient evidence for a positive diagnosis.. The history of the patient, the existence of predisposing factors, such as heredity and environment, must be carefully considered. The symptoms of incipient tuberculosis are not always typical. Cough may or may not be present, but hæmoptysis, in the absence of other causes for it, is a symptom of the greatest significance. The temperature is also of great importance. Even slight rise of temperature in the afternoon, if other causes can be excluded, is extremely suspicious, and, whenever possible, a two-hourly record for a period of several days ought to be taken. But a physical examination of the patient, if carefully performed, will give more distinct evidence than other methods. The height and weight of the body, the circumference and degree of expansion of the chest, are data of importance. Deficiency of stature and physical development are known to be indicative of, at least, a disposition to the disease. On inspecting the chest very often a retardation in the respiratory movements over the affected lung portion can be observed, this retardation being more pronounced in a more recent involvement of the lung. Foci of greater extent diminish the excursions of the diaphragm on the affected side, which can be recognised by the fluorescent screen. The vocal fremitus gives little information. Percussion of the chest should be light, since marked dulness is but rarely found over portions of the lungs in incipient tuberculosis. Percussion, however, will sometimes elicit a significant retraction of one apex as compared with the other. As regards auscultation, it must be remembered that many of the signs are subject to considerable variation, and repeated examinations at different times of the day should be made before final judgment of the case is given. Although every portion of the lung should be carefully examined, particular attention should be paid to the apices, to the lower borders, and to the axillary regions. The earliest auscultatory sign in early pulmonary tuberculosis is the rough and slightly diminished respiratory murmur. The rough character is produced by a succession of sounds following each other too rapidly for aural differentiation. If the succession is less rapid, then we speak of an interrupted respiratory murmur, which suggests much coarser changes. The respiratory sound thus loses its smooth quality, and becomes impure and roughened. This change is produced by slight inflammatory changes in the bronchioles, the air passing over an uneven surface and through a slightly narrowed lumen. This roughening of the respiratory sound precedes the appearance of râles, and is the earliest auscultatory sign of tubercular affection of the air passages; the appearance of râles over the apices and also in the axillary regions is next to it in importance. These râles indicate catarrhal conditions. In the earlier stages they are usually fine, crackling râles, and can often only be heard directly after the patient has coughed. When bronchial breathing is audible it means more extensive disease. By its localisation at the apices, together with other signs, it is pathognomic of consolidation. Other deviations from the normal respiratory murmurs are indicative of still more advanced tissue changes. Pleuritic friction, on the other hand, is often heard at an early period frequently in the axillary line.

Only passing mention is made of other diagnostic methods, of which the use of tuberculin is the most important. The following is the exact wording of the report on this subject:—" Although it is well understood that by injection of small doses of tuberculin, and by the febrile reaction thus produced in tuberculous individuals, we can diagnose early tuberculosis, the method necessitates great care in its application, and an apparatus too complicated for general use, so that it does not lend itself to a more general introduction. The dangers of the preparation in the hands of one well acquainted with the method are very slight; but by applying carefully the other means of observation and examination, a case would rarely be found in which it would add considerably to the information gained."

Various other methods have been suggested for the early detection of tuberculosis, but these are not recommended as having any practical advantage in the everyday diagnosis of the disease over the careful and painstaking application of the ordinary methods which are well understood.

The Path of Infection in Pulmonary Tuberculosis.

Wasserman (*Berlin. Klin. Wochenschrift*, November 28th, 1904) in discussing this question quotes some cases which tend to show that not infrequently tubercle bacilli reach the lungs through the tonsils and pharynx. If the pharyngeal mucous membrane is the seat of some inflammatory lesion, the bacilli can gain a lodgment and then secondarily involve the cervical lymphatic glands. The infection then travels by the lymphatics to the pleura, and there sets up localised pleurisy with formation of adhesions. These adhesions form most readily at the apices because of the less amount of movement during respiration at this situation. While the preliminary symptoms may escape the notice of the patient, the involvement of the pleura at once sets up pain, and this explains the occurrence of shooting pains in the shoulders, and on examination friction sounds can be heard. The bacilli thus gain direct entrance to the lung, and there set up the well-known tubercular lesions.

The Nervous Complications of Scarlet Fever.

Rhein (*American Medicine*, June 17th, 1905) records a case of scarlet fever in which, while clinically the symptoms of meningitis and brain irritation were practically absent, yet pathologically there was evidence of beginning pachymeningitis and encephalitis. A girl of nine years was admitted to the Municipal Hospital with symptoms of scarlet fever. There was nothing specially noticeable in the course of the disease except that nephritis intervened and a short time before death there developed a tremulous condition of the general musculature. The temperature ranged between 100° to 106°, and the pulse varied from 90 to 100. Upon admission there was a mild delirium, which disappeared in a day or two. Post-mortem examination revealed the presence of a mild meningitis, associated with an undoubted inflammatory change of the cortex of the brain. The author remarks that this is an unusual complication of scarlet fever; and that while meningitis has been observed in a number of cases of this disease, but little is known of the part that scarlet fever produces in the production of encephalitis. He considers that encephalitis and meningitis of an inflammatory type occur as the result of the irritation set up by the streptococcus, or of a toxine in the blood emanating from this or from other organisms. Extensions from neighbouring inflammations, such as middle-ear disease, or from infectious embolism, may produce encephalitis. The commonest complication, however, of scarlet fever is hemiplegia, the cause of the hemiplegia in most cases being either hæmorrhage, embolism, or thrombosis. The next most frequent complication is involvement of the peripheral nerves. Tetany has also been reported in a few cases. Scarlet fever may also cause choked disc, optic neuritis, or amaurosis. The latter is probably of uræmic origin, and the prognosis is good. A few cases are on record exhibiting ataxic symptoms. This disease may also be followed by neuralgia, epilepsy, disseminated sclerosis, hysteria, chorea, hydrocephalus, and disordered mental states.

Diabetes of Infectious Origin.

Labbe (*Le Bulletin Medical*, abstracted in the *Medical Record*, June 17th, 1905) quotes two cases in which diabetes followed an infection. In the first instance the patient, 45 years of age, who was obese, exhibited after an attack of angina severe diabetic symptoms, namely, intense thirst, extreme fatigue, progressive diminution of sight, emaciation, polyuria, glycosuria. Under treatment the symptoms began to subside in four days; after six weeks they had completely disappeared, and for two years there had been no glycosuria. The second case was a woman, 67 years of age, who during convalescence from an acute naso-pharyngeal attack showed the same symptoms as were enumerated in the last case. They gradually disappeared. From these observations the writer concludes that infection is capable of causing a disturbance in the organism which gives rise to glycosuria. As a rule these disturbances are slight, giving rise to an alimentary glycosuria only, but in certain cases they are more serious and actual diabetes develops.

Mental Maladies following on Artificially Produced Auto-Intoxication.

In the *Archives de Neurologie*, No. 112, 1905, is a review of an interesting paper by Blum. The following are the main points:—The thyroid gland is a purifying organ which takes up and renders harmless poisons which are continuously being formed in the economy of the body. If the gland be rendered totally inactive an acute intoxication supervenes. If it functions only partially, there results an intoxication with thyrotoxalbumen, producing thyroidism which can be compared to Baredow's disease. The poison which the gland finds normally comes very probably from the gastro-intestinal canal. Dogs deprived of their thyroid glands and fed on meat succumbed rapidly. Those which received a milk diet before and after the operation resist the effects, or at any rate survive for a long time. Some acquire immunity by the gradual and careful addition of meat to the milk diet, and preserve their health. Some of the animals which survive present for a longer or shorter time certain pathological psychical phenomena. Blum has noticed these effects in 18 dogs. They appear to get hallucinations which force the animal to perform extraordinary actions—*e.g.*, their nose with the hind legs in the air, scratching and wounding for hours together the snout and eyes. They become torpid, remain many minutes without a movement, with a haggard expression and the head bent forward; then the hindquarters begin to oscillate, and the dog falls to the ground. They get motor troubles, observable in walking, and often lie on their backs with the legs in the air. Two of the dogs had severe convulsions. These tonic manifestations appeared periodically after lucid intervals.

PATHOLOGY.

A Possible Spirocheta of Syphilis.

Ellis (*American Medicine*, June 17th, 1905) discusses recent work on the pathology of syphilis. Anthropoid apes have been successfully inoculated with syphilis; and now Schaudinn and Hoffmann have discovered a spirocheta in syphilitic lesions which they have provisionally named *Spirocheta Pallida*. They have found this organism in 26 cases. In six of the eight recent cases the lesions were four and a-half weeks to eight weeks old, without secondary involvement of skin or mucous membranes; the other two had lasted three and a-half to four months. In each of the eight, spirocheta pallida was found in the fluid of enlarged inguinal lymphatic glands; in two the glands were removed; in the others the fluid was obtained by puncture. This organism is very small, 4 to 14 microns long and of practically unmeasurable width (less than a fourth micron), actively motile, and does not stain with the ordinary dyes. It is distinguished from *spirocheta refringens*, which has been found in other lesions, by possessing a greater number of curves, which are sharper and more closely placed and screw-like, and stains much less deeply. It stains best with azure blue and eosin. These observers do not commit themselves to the opinion that this organism is definitely the cause of syphilis; this point awaits further investigation. Metchnikoff and Roux have reported that six of the inoculated apes at the Pasteur Institute were examined, and in four of them spirocheta pallida was found. One of the two negative cases was a chimpanzee, which had almost recovered as a result of serum treatment. In one animal the organism was found in large numbers in the fluid from a sore above the eye, its presence in this extra-genital inoculated lesion constituting the strongest argument in favour of its being the specific cause of syphilis. Metchnikoff and Roux likewise make no definite claim regarding the specificity of this organism, although the former believes it may be utilised as a diagnostic test of lesions produced in animals. These observers have found that Marino's method of staining, by using a solution of azure blue in methyl alcohol and a weak aqueous solution of eosin, the most satisfactory, since, though the organisms do not stain so rapidly or accurately as by Glensa's method, yet a positive result can be obtained in 15 minutes. As none of the spirochetæ have been cultivated, the determination of its specificity requires more extended investigation before one can assert *spirocheta pallida* to be the organism of syphilis.

The Reaction Curve of Tubercle Bacilli from Different Sources in Bouillon containing Different Amounts of Glycerine.

Theobald Smith (*Journal of Medical Research*, May, 1905) has noted certain differences between tubercle bacilli from different hosts in their behaviour towards ordinary bouillon containing 3 to 5 per cent. of glycerine. He sums up these differences in the following sentences :—1. In glycerine bouillon containing bovine bacilli the originally acid reaction becomes less so with the multiplication of the bacilli, and eventually a feeble alkaline reaction to phenolphthalein is reached. Cultures containing bacilli of human origin do not become alkaline. 2. If tubercle bacilli multiply in ordinary peptone bouillon to which glycerine has not been added, the reaction becomes alkaline both in cultures of the bovine and human race of bacilli ; in other words, the reaction curve is the same for both. 3. In bouillon without glycerine the muscle sugar does not appear to be removed by tubercle bacilli, for B. coli produces the same amount of acid before and after the growth of the bacilli in it. 4. Bacilli having the characters of the human variety differ among themselves in the degree of acid production ; some cultures after one to three months are far more acid than others. This phenomenon is constant for the same culture. 5. Tuberculin made from vigorous bovine cultures is alkaline ; that from human cultures markedly acid to phenolphthalein. Further experiments were undertaken by the author to determine more definitely the significance of acid production in glycerine bouillon. For this purpose varying quantities of glycerine were added, and the reaction changes noted after one or more months. In the case of a bovine culture it was found that in bouillon containing glycerine from traces up to 5 per cent. the tendency towards a neutral or slightly alkaline reaction was the same in all cases ; the percentage of glycerine thus had no influence on the final reaction attained. With a culture of human tubercle bacillus which produced considerable amounts of acid in glycerine bouillon, amounts of glycerine up to three-tenths per cent. did not interfere with a final slightly alkaline reaction ; but in bouillon containing 1 and 2 per cent. of glycerine the reaction did not reach neutrality. In bouillon containing 3 and 5 per cent. the acid accumulated after several months was quite high, but there was no appreciable difference in the reaction between the flasks containing 3 and 5 per cent. glycerine. Other human cultures were also tried with similar result. The final acidity of cultures containing only 1 per cent. glycerine was, as a rule, lower than those containing more. In order to bring out the difference between the human and bovine types of bacilli, at least 3 per cent. of glycerine should be employed. The bovine type of bacillus acts upon the glycerine in a way different from the acid-producing human type. Both types need and utilise glycerine, for if this be withheld, both multiply but feebly, and the medium becomes alkaline. The bovine type probably utilises glycerine without previously converting it into an acid. The human type converts it into an acid, and two processes—the acid formation and the alkali production—go on side by side. The curves show that acid accumulates much more rapidly towards the end of the active culture period. This may be due to the more rapid acid formation with greatly increased numbers of bacilli and to less alkali formation as the rate of growth of the bacilli becomes reduced and checked by exhaustion of other nutritive substances.

The Widal Reaction.

Andrade (*Medical News*, May 27th, 1905) has made a careful comparison of the results obtained from the examination of 300 specimens of typhoid blood with both living and dead cultures of typhoid bacilli, and draws the following conclusions :—1. Living and dead cultures are about equally sensitive to the action of the agglutinins of typhoid fever, though in the dead culture the reaction may require a longer time to take effect, and it is therefore necessary to keep the specimen under observation for two hours. In some cases the reaction is quicker with the dead than with the living cultures. 2. The dried blood method is equally effective with dead as with living cultures. 3. The reaction, when it takes place, is more characteristic with dead than with living cultures ; there are no pseudo-reactions with dead cultures. 4. Dead cultures do not seem to lose their sensibility to the agglutinins of typhoid fever for a long time. The author has now used a dead culture which was prepared six months ago, and it reacts just as typically as when first used.

PÆDIATRICS.

Paratyphoid Fever.

Edmund Cautley (*British Journal of Children's Diseases*, June, 1905) in a clinical lecture says that the term " paratyphoid fever " has been given to a febrile disease very like typhoid fever. Many of the cases so described are due to an organism closely allied to the bacillus of typhoid fever, and others to an organism more allied to the colon bacillus. Much confusion has arisen from the term " paracolon infection " being applied to all cases due to organisms intermediate between the typhoid and colon bacillus. No doubt there are many organisms in this group : first there is the colon bacillus, then the paracolon bacillus, the paratyphoid bacillus (*a*) and paratyphoid bacillus (*b*), and finally the typhoid bacillus. The " bacillus enteritidis of Gaertner " and the " bacillus psittacosus " are also members of this group. (The various strains of the dysentery bacillus should also be included.) Schottmüller subdivided the paratyphoid organisms into two groups, *a* and *b*, and thought there were probably intermediate forms. The difference between the *a* and *b* groups is that culturally the *a* group is like the paracolon bacillus, whereas the *b* group is unlike the paracolon bacillus and produces a terminal alkalinity in milk. Both organisms give rise to symptoms like typhoid, and thereby differ from the paracolon bacillus. The number of cases on record are now over 100, and of these comparatively a few were in children under 12 years of age. This does not indicate any special insusceptibility in early life. Probably on account of the indefinite character of the symptoms and the mild course of the disease, the patients are diagnosed as suffering from some febrile attack of unknown origin. Cautley then gives details of a case. A boy, *ætat* 10 years, was admitted into hospital under his care on September 24th, 1904, for supposed "general tuberculosis." He had been ill for five weeks with general pains, constipation, wasting and, recently, headache. On admission he was feverish, drowsy and ill-nourished. There were no spots or abdominal distension. The spleen was easily felt. The leucocyte count was 7000, and Widal's reaction, 1-20, was negative at the end of an hour. On October 1st a few spots were present, and a few days later a relapse occurred. Widal's reaction was negative on October 12th, but the paratyphoid *(b)* bacillus was agglutinated with a dilution of 1 in 30 in 40 minutes. The subsequent course was one of steady defervescence. During the first six days the temperature ranged between 100° and 104° F.; it then fell somewhat for two days, and was followed by a typical relapse. The maximum pulse rate was 124. Constipation and imperfect digestion of milk were troublesome at times and caused some abdominal distension. Recovery was uneventful. The chief features of the disease are a mild course very like typhoid fever, but without the serious complications, and with much less wasting than is usually seen in typhoid.

General Description.—The disease is probably not rare. Probably 5 per cent. of cases diagnosed as typhoid on clinical grounds are really due to paratyphoid infection. It may occur in sporadic, epidemic or endemic form. Isolated cases are found in the course of typhoid fever epidemics. Sometimes there is a mixed infection of the typhoid and paratyphoid organisms. Thus in a fatal case the paracolon bacillus was found during life in the gall-bladder, blood and urine, and healing ulcers were found in the ileum post mortem. The paracolon bacillus was agglutinated in a dilution of 1 in 50, the typhoid bacillus in a dilution of 1 in 250. The disease may occur at any period of life from four months to 60 years. The symptoms and course are very like those of typhoid. Rose spots are present in about half the cases; the spleen is palpable in about the same proportion. Intestinal hæmorrhage occurs in about 5 per cent. Post-mortem examinations show that it may occur apart form the typical intestinal lesions of typhoid, but, on the whole, the course is more favourable. Six fatal cases are on record.

Cultural Differences.—The paratyphoid (*b*) bacillus causes a primary acidity and a terminal alkalinity in milk. It does not coagulate milk or produce indol in broth cultures. It causes no fermentation of lactose, but it ferments glucose. The typhoid bacillus possesses similar properties, but does not produce a terminal alkalinity in milk or ferment glucose.

Still's Type of Chronic Joint Disease in Children, and the So-called "Tuberculous Rheumatism."

Parkes Weber (*British Journal of Diseases of Children*, May, 1905). G. F. Still, in 1896, described the type of chronic joint disease in childhood which goes by his name. Previously it had been confused with rheumatoid arthritis, but is to be distinguished by the accompanying enlargement of the spleen and lymphatic glands, generally of moderate degree. (Still has given a description of this disease in Allbutt's "System of Medicine," vol. iii.) The joint affection is multiple and symmetrical without tendency to suppuration, and without fibrillation of cartilage and osteophytic changes, but with capsular thickening and a good deal of swelling, probably due to effusion around, rather than in, the joints. The hands, feet, knees and cervical spine are most commonly affected.

It is probable that Still took too gloomy a view of the prognosis, having studied chiefly the graver cases, and that many less severe cases of this disease occur, especially in older and less cachetic children, in which great improvement or even cure ultimately results. The following cases serve to support this opinion. In the first one very great improvement took place, and in the second the affection appears to be relatively mild and quite stationary. The first patient is a boy, now aged 7¾ years, in whom the disease seems to have commenced acutely at the latter part of 1900. From November to December, 1900, he suffered from an illness said to be articular rheumatism. Cervical rigidity was noticed at this time, and at one time gave rise to a suspicion of spinal caries. The swelling of the hands was observed shortly before May, 1901, when he came under Weber's observation. The articular affection of the feet became well marked by the end of August, 1901. Under treatment with rest, iodide of iron, aspirin, arsenic, etc., the condition of the joints fluctuated considerably. Occasionally there was moderate fever, and in November, 1901, there was an attack of endocarditis of the mitral valve, the signs of which have persisted up to the present time. In February, 1902, the temperature began to remain below 100°. The child had a good appetite, put on flesh, and seemed happy and free from pain in the joints. In April, 1902, the condition was as follows:—There was some apparent enlargement of the knee and elbow joints, but the most marked feature was the symmetrical swelling about the articulations of the hands and feet. In the feet it was most marked over the metatarsus, in the hands over the proximal ends of the metacarpus and over the finger-joints. There was considerable stiffness in the cervical spine. The heart was enlarged, and there was a mitral systolic murmur. The spleen extended below the ribs, and the lymphatic glands in the neck, axillæ and groins were moderately enlarged. They were freely movable and separate from each other. The liver was also considerably enlarged. In September, 1902, it is noted that the general and articular condition had improved, but there were crackling and signs of effusion in both knee-joints. He was kept under continuous observation, and was last seen on December 22nd, 1904. He then went to school and looked well. The stiffness of the cervical spine had almost disappeared, and movements in the limbs were good. There was still some swelling of the affected joints; he had no pain anywhere. The spleen was just palpable. The axillary glands on both sides were slightly enlarged.

The second case is in a girl, 12 years of age, who came under observation in May, 1904. She presented, broadly, similar features to the first case, except that the spine was unaffected and that there was no cardiac lesion. There was no fever, and the general condition was good. A diagnostic injection of tuberculin was made, and she gave a positive reaction. It must be noted that the general reaction was not accompanied by any local reaction in the joints. At present (February, 1905) her general condition is much the same as when first seen.

Weber thinks that these cases may very possibly belong to the "tuberculous rheumatism" described by French authors—that is to say, a joint lesion set up by tubercular toxins generated in some other part of the body, acting on individuals peculiarly susceptible.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Visit of British Doctors to Paris—The General Medical Council—Centenary of the Royal Medico-Chirurgical Society—Presentation Day at London University.

THE autumn visit to Paris which the British Medical profession promised their French *confrères* to pay, came off during the second week of May, and proved an unqualified success. About 150 physicians and surgeons from various parts of the British Isles and from the colonies, together with a sprinkling of ladies, made up the party, which left London on May 10th. Nothing could have exceeded the warmth of the welcome afforded them, and from the moment of their arrival on French soil to that of their departure, there was one continual succession of welcomes and felicitations. At Calais the party was received by the members of the municipality and of the Chamber of Commerce, and a short address of welcome was delivered by Professor Lennel. On arrival at Paris the Calais train was drawn up at a special platform, where Dr. Lucas Championnière, vice-president of the organising committee, and Dr. Triboulet, the secretary, accompanied by many Parisian members of the profession, were waiting for their British colleagues. Dr. Championnière welcomed the visitors in a few sentences of cordial greeting, to which Sir Dyce Duckworth replied. In the evening there was a reception at the Sarbonne, where the guests were received by M. Liard, Rector of the Council, and the leading members of the University of Paris. The magnificent edifice was thrown open, and at the conclusion of the speeches the evening was spent in wandering through the salons and halls, inspecting the pictures, and making arrangements for visits to hospitals and cliniques during the forthcoming days of the visit. On Thursday morning Professor Debove, on behalf of the French profession, officially received the guests at the Faculty of Medicine, and in the afternoon a similar compliment was paid to them at the Hôtel de Ville, where they were heartily welcomed on behalf of the Paris Municipal Council by Dr. Paul Brousse, the president. In the evening a reception, given by Dr. Bouchard, president of the French organising committee, at the Salle Willington, was largely attended. The forenoons of Friday and Saturday were entirely devoted to visits to the various hospitals of Paris, each visitor choosing for inspection the institutions most closely concerned with his own department of work. Everywhere the reception was cordial in the extreme: professors, physicians, surgeons, nurses, attendants, all vied with one another in their desire not only to be courteous but to throw open to the keenest inspection every detail of the daily routine at their respective institutions. In Paris, the hospitals are under the control of the municipality, and every citizen has a *right* to claim admission should he require medical or surgical assistance. The administration resembles that of our Poor Law infirmaries, but in France admission entails no social disqualification, and those who are able to pay for their maintenance are invited and expected to do so. One result of this system is that the hospital population varies largely, according to the condition of the public health. At home, when our hospital beds are full, further admissions are declined, but in France room must be provided somehow for the sick population, to whom the law gives the right to demand shelter. It follows that in times of prevailing sickness the wards become overfull, and the resources of the executive are often totally inadequate to deal with the pressure of such emergency. At the Hôtel Dieu we were told that a ward comfortably filled under ordinary circumstances with 28 to 30 beds would, under conditions of emergency, be called upon to accommodate double that number of patients, or even, if need were, as many as floor space could be found for. Among the more striking features of the Parisian hospitals, one specially remarked the cheerlessness and absence of home-like comfort in the wards; the closeness of the beds to one another; the paucity of nurses, all of whom were lacking in smartness of appearance and alertness of manner; the large number of house physicians, house surgeons, and clinical assistants; and the absence of that quiet method and orderly management to which we are accustomed at home alike in our hospitals and our Poor Law infirmaries. The hospitals of Paris are too many even to enumerate, but, apart from special hospitals, those which attracted most attention among the older institutions were the Salpêtrière and the Hôtel Dieu, and among the more modern, the Boucicaut. At the Salpêtrière, the work of Professor Déjerine in the treatment of psychoneuroses was pre-eminently notable; and at the Hôtel Dieu, Professor Dieulafoy impressed his British colleagues with the thoroughness of his clinical methods, the lucidity of his expositions, and the masterly grasp of his cases. The Hôspital Boucicaut was founded by Madame Boucicaut, the late proprietress of the Bon Marché, who, on her death, bequeathed 10,000,000 francs to the Assistance Publique for the purpose of establishing a public hospital. The hospital, which was inaugurated in 1897, is built on the pavilion system, and is perfect in every detail. Dr. Letulle, the senior physician, and the other members of the staff, were indefatigable in their attentions, and manifested a pardonable pride in pointing out the various excellencies of the delightful, up-to-date institution to which they are attached. On Friday afternoon the British party was conveyed by special trains to Chantilly, where the magnificent chateau and grounds, which the late Duc d'Aumale left to the Institute of France, were thrown open for inspection. In the evening an elaborate theatrical entertainment was provided at the Automobile Club, in the Place de la Concorde. The programme, which was long and varied, was sustained by leading artistes from the Comédie Francaise, the Grand Opéra, and the Opéra Comique, and where every item was of the best, no room was left for criticism. The proceedings commenced by the singing of the two National Anthems, after which Madame Bertimy recited a poem, composed for the occasion by M. Jean Rolinquet, which, having recorded that even Molière would not be unwilling to be ill if he could only have such physicians as those present to cure him, further alluded in flattering terms to the London reception of French doctors in October last, and having declared that such visits went far to promote an *entente cordiale* between two great nations, finished as follows:—

> " Et depuis, leurs savants, les plus fameux du monde,
> Unis étroitment par le coeur et l'esprit
> Poursuivent en commun la recherche féconde
> Du philtre bienfaisant qui soulage et guérit.
> Consacrant de nouveau cette heureuse harmonie,
> Puisqu 'aujourd' hui, Messieurs, vous traversez
> la mer,
> Apportant à Pasteur, notre immortel génie,
> L'hommage fraternel de votre grand Lister,

Soyez les bienvenus sur la terre de France !
Entre nos deux pays il n'est plus de détroit,
Et nous vous recevons, Princes de la Science,
Comme le grand Paris a reçu votre Roi ! "

The entertainment, which was one of the most *recherché* and enjoyable description, lasted till after one in the morning, and terminated with a cinematograph picture of the party at Chantilly taken that afternoon. In the early afternoon of Saturday a considerable number visited the Hertford British Hospital at Levallois-Perret. This hospital dates back to 1780, when Sir Richard Wallace opened two wards and a dispensary for the reception of the sick British poor. The present building was not inaugurated until 1879, and in 1900 was made over by Lady Wallace to the British Government. The hospital is commodious and modern; it contains about 40 beds, in addition to a number of private rooms for the accommodation of better class patients who can afford to pay something towards the cost of their residence and treatment. The number of in-patients averages upwards of 300 annually, and of out-patients over 2000, so that, thanks to the munificence of the late Sir William Wallace, the English poor population of Paris is adequately and well provided for in its times of sickness or accident. From the Hertford Hospital the visitors drove to the Pasteur Institute in the Due Dutot, where they were formally received in the library by Dr. Roux, the Director of the Institute, Madame Pasteur, and many eminent French scientists. An adjournment was made speedily to the mausoleum of the great Pasteur, which is situated in the basement of the building, and there Dr. Kingston Fowler, Dean of the Medical Faculty of the University of London, delivered a short address and craved permission, on behalf of the 400 professors of the Faculty which he represented, to deposit a wreath on the tomb of the great master, to whose labours in the cause of science and humanity the world owed so much. The Institute and adjoining hospital were afterwards gone over and admired by the large company present. In the evening a great banquet was held at the Grand Hôtel, under the chairmanship of Professor Bouchard. The following is the menu, which was printed on a handsome card, ornamented with gracefully intertwined roses, thistles, and shamrocks, bound together with a tri-colour ribbon, and surrounding the coat-of-arms of the Paris Faculty of Medicine :—

PETITE MARMITE.
Truite Saumonée, sauce Windsor.
Filet de Bœuf garni à la Parisienne.
Côtelettes d'Agneau aux Morilles.
Cailles en Chaudfroid à la Gelée.
Poularde du Mans Truffée.
Salade.
Asperges d'Argenteuil, sauce Chantilly.
Mousse glacée Alexandra.
Friandises.
Corbeilles de Fruits.
VINS.
Tisane Saint-Marceaux.
Graves supérieur—Médoc vieux.
Château Cantegril—Château d'Issan 1896.
Corton 1889.
Saint-Marceaux Extra Dry.
Café—Liqueurs.

Music was supplied by the band of the 24th Regiment of Infantry, under the baton of M. Soyer. After dinner the chairman read a telegram which he had received from M. Loubet, the President of the Republic, in which he expressed keen regret at his inability to be present. The chairman also announced that he had been commanded to confer upon Sir William Broadbent the Cross and Insignia of Commander of the Legion of Honour. After the enthusiasm which this announcement excited had subsided, a long list of toasts was entered upon, and a highty convivial and successful evening eventually terminated towards midnight. The ladies of the British party were not present at the banquet, but were taken in groups, each group having a French lady to act as hostess, to the Grand Opéra. On Sunday some of the visitors departed to visit Vichy, Aix-les-Bains, Evian, Pau and Biarritz, while the remainder returned to England. The private hospitality of the Parisian physicians and surgeons was of the most lavish description, and nothing which could conduce to the pleasure and success of the visit was left undone either by the profession at large or by its individual members. In the memories of all who were privileged to be numbered among the guests there must ever remain an abiding sense of gratitude to hosts who provided so abundantly for both their instruction and recreation.

The eighty-first session of the General Council of Medical Education and Registration commenced its sittings on May 23rd. The chair was occupied by Dr. Donald MacAlister, the new president, who, in the course of his opening address, referred to the losses sustained by the Council through the deaths and resignations of members and officials, and outlined a business-like programme of modest dimensions which would occupy the time and attention of the Council during the session. The remainder of the first day's business was devoted to the consideration, *inter alia*, of a report from the executive committee in regard to a petition from licentiates of the Apothecaries Society of London, requesting an alteration in the Medical Register of the designation therein given to the qualification granted by the Society. The executive committee came to the conclusion that no change of designation could be made without an Act of Parliament. A report was also presented from the executive committee on the dental business transacted since the last meeting of the Council. A series of revised standing orders relating to the visitation and inspection of qualifying examinations were presented for adoption, and gave rise to animated discussion. On Wednesday and Thursday the time of the Council was, in great measure, taken up with the consideration of penal cases. On Friday the remaining committee reports were considered; and on Saturday the only important business was a discussion on the propriety of increasing the number of direct representatives for England, Scotland, and Ireland on the Council to the maximum number permitted by the Medical Act, 1886. There are at present only five direct representatives, and the large increase in the number of registered practitioners throughout the country was made the principal reason for claiming additional representatives. In support of the proposition some interesting statistics were quoted by Mr. Brown. He pointed out that in 1886 there were 17,000 medical men registered in England, whereas now there are over 21,500. In 1886 there were 5000 registered in Scotland, now there are 11,000. In Ireland the number had increased during the same period from 4317 to 5267. After long discussion the motion to increase the direct representation was, for reasons that are neither very clear nor adequate, defeated by eight votes. After the appointment of committees, the session, which was unusually short and uneventful, terminated on the 27th with a vote of thanks to the president, moved by Dr. Norman Moore and seconded by Sir Thomas Myles.

The Royal Medical and Chirurgical Society of London celebrated the 100th anniversary of its birth by a series of festivities during the third week of May. On Monday, the 22nd, the centenary celebrations were commenced by a meeting of the Society at its rooms in Hanover Square, when an address was delivered by the president. Sir Richard Douglas Powell. Dr. Christian Bohr, Sir William Ramsay, Dr. Robert Barnes, and Dr. Walter H. Gaskell were admitted honorary Fellows of the Society. After the presidential address, Professor Chiene, on behalf of the Medico-Chirurgical Society of Edinburgh, Mr. John Langton, on behalf of the Medical Society of London, Dr. Frederick Taylor, on behalf of the Clinical Society of London, Dr. Robert Boxall, on behalf of the Obstetrical Society of London, and Mr. Charteris Symonds, on behalf of the Laryngological Society of London, congratulated the Fellows of the Royal Medical and Chirurgical Society on the attainment of the 100th anniversary of the Society's foundation. In the evening a banquet was held at the Hotel Cecil, at which the Prince of Wales was the guest of the evening. Sir Richard Douglas Powell occupied the chair and presided over a large and representative gathering of Fellows and their friends. On Tuesday, the 23rd, Dr. Henry Head delivered an oration on "The Afferent Nerves under a New Aspect," and on the following evening a conversazione was held at the Natural History Museum. A small but interesting exhibition was arranged in connection with the celebration, and was open at the Society's rooms during Monday, Tuesday, Wednesday, and Thursday from 11 a.m. to 5 p.m. The opportunity for inspecting an unique collection of objects of historical interest was taken advantage of by large numbers of medical men.

The University of London celebrated Presentation Day on May 10th. In the absence of Lord Rosebery, the chair was occupied by Dr. Pye Smith, the Vice-Chancellor. In the course of his report, Sir Arthur Rücker, the Principal, dealt in detail with the operations of the University, and said that some of the preliminary work which had been done since the reorganisation of the University had begun to bear fruit in the academic year which was now approaching its termination. The question of the conditions of entrance to Universities had been prominently before the public during the year, and it was satisfactory to be able to state that there had been no falling off in the number of candidates for the London matriculation. A very important step had been taken by the Universities of Oxford, Cambridge, and London, which had agreed upon a scheme for the mutual recognition of the certificates given for their respective entrance examinations. Already 25 persons had been matriculated as students of London University under this agreement. Considerable progress had been made with the project for the concentration of the teaching of the preliminary and intermediate medical studies in a few centres, under the control of the University. Arrangements were in progress, under the auspices of the University, for establishing centres at University and King's Colleges, and Mr. Alfred Beit had given a munificent donation of £25,000 in aid of the scheme for the establishment of a third centre on the South Kensington site. It was much to be hoped that this generous gift would be supported by other large subscriptions. It was a matter of vital interest to the public that the unique opportunities for medical education afforded by the great metropolitan hospitals should not be wasted; and if they were to be utilised, it was essential that the whole curriculum of medical education should be easily accessible to London students. No doubt it was undesirable that this end should be attained by mingling the resources of the hospitals and the medical schools; but if the two were to be separated, it was necessary that medical education should receive the same public help that was ungrudgingly given to engineering. It was not too much to say that medical men did more unpaid work for the public than did the members of any other profession, and that, in return, less help had been given by the public to medical education, in London at all events, than to any other of the principal branches of applied science. Large as the gifts to the University were, it was unfortunately true that much money was needed to make up for the neglect of University teaching in London in the past. Though the increase in the Government grant to University colleges would be of great value, the equipment of both University and King's Colleges needed improvement, and the salaries of the professors were quite inadequate. The whole question of retiring pensions, to which a private donor had just devoted £2,000,000 in America, was untouched in London. Public confidence in the University was proved by the fact that the Goldsmiths' Institute and upwards of £80,000 had been given to the University in the course of the year, and the gathering of the various colleges around the University as a centre was being followed by the beginnings of a corporate life among the students for whose benefit the University existed. The Registrar next read the names of the successful candidates for degrees and honours, and each candidate was presented to the Vice-Chancellor. The Vice-Chancellor addressed the newly-admitted graduates, and congratulated them upon the amount of knowledge they had shown in the examinations, and still more upon the priceless benefit of having learned how to learn.

Queensland.

(FROM OUR OWN CORRESPONDENT.)

The Brisbane General Hospital—The Lady Lamington, Lady Bowen, and Children's Hospitals—Infant Mortality—Plague in Queensland.

PERHAPS the matter of greatest interest to the medical profession in Queensland is the condition of uncertainty with regard to the carrying on of the Brisbane General Hospital. For several years, presumably in consequence of drought and bad times, the subscriptions to the hospital have been falling off, while at the same time the number of those who availed themselves of its benefits has been increasing. The hospital committee had a hard fight to make ends meet, and might have succeeded had not the Government arbitrarily reduced the subsidy previously paid. Month by month the debt of the hospital increased till at last the committee, seeing no other way to carry on, made a vain appeal to the Government for help in the way of a loan and an increase of subsidy, and, on its refusal, resigned in a body. The resignation was in a few days withdrawn, on the promise of the Government to accept responsibility for expenses till it brought into operation a scheme to carry on the work of the hospital. What this scheme is, is at present a mystery, but the general belief is that it will prove to be a municipal tax on Brisbane. Acting on this supposition, the Hospitals Aid Association prepared and drafted an alternative scheme by which they promised to raise each year by voluntary subscription half the income required by the four Brisbane hospitals. The association, which last year raised £4000 by special effort, did not believe that the voluntary system had broken down, but that it was suffering from want of proper organisation. The association advocated, besides an organised system of regular giving and collecting, a tax on amusements such as prevails in several European countries, the remission of municipal rates to the hospitals, and a Government endowment of 30s for each 20s voluntarily subscribed. It promised, too, to make a first charge of £500 each year on its collections, to repay a Government loan which would free the Brisbane Hospital from present debt. Details of this scheme were laid before the Home Department with the request that it might be given a fair trial. Alternatively, definite information as to the Government's proposed scheme was asked for, as the present condition of uncertainty was seriously affecting the association's receipts. A curt acknowledgment and the statement "that there was no reason why any prospect of future legislation should prevent them from proceeding as usual with their operations" was the only reply vouchsafed. The natural result of this action was the indefinite postponement of the Hospital Saturday and other collections, on the ground that people will not subscribe voluntarily for an institution for whose support they expect taxation. In the meantime the hospital committee are carrying on the Brisbane Hospital under marvellously changed conditions, their expenses being paid by Government money and their receipts going to pay off their debts.

The Lady Lamington, Lady Bowen, and Children's Hospital, on the other hand, each rejoice in showing a credit balance. The new Lamington Hospital, which has just been opened free of debt, is a well-designed and imposing building, and is justly proud of its fine operating room, fitted with every modern improvement. At the opening ceremony one of the speakers questioned the advisability of accepting any payment whatever from patients, and brought some strong arguments to bear on a system of hospital support which might on the one hand tend to close the pocket of the subscriber to charity, and on the other open the way to a measure of hospital abuse.

In our northern summer the prevalence of infantile diseases is ever in evidence, and the high death-rate among farmed-out illegitimate infants some months ago attracted the attention even of the general public. The medical staff of the Children's Hospital appealed to the Government, the Society for the Prevention of Cruelty to Children also sent a deputation, and articles in the local press so emphasised the matter that a bill is now being prepared to secure a measure of infant protection and the registering and regulation of baby-farmers. As sketched just now it is none too drastic, but ere it passes through committee that fault may be remedied and an efficient and workable measure secured.

As far as plague is concerned, the last published bulletin announced that no further cases had occurred in Queensland, and the two cases now being treated in Cairns were said to be progressing favourably. This year in Brisbane, Ipswich, Maryborough, Childers and Cairns there have been outbreaks, but the prompt and energetic action of the Public Health Department has in each case prevented any considerable spread of the disease. In Maryborough, especially where the dreaded pneumonic type proved so virulent, their prompt measures and decisive action cannot be too highly lauded.

Messrs. Parke, Davis & Co. direct attention to their advertisement on page 12.—[Advt.]

Tasmania.

(FROM OUR OWN CORRESPONDENT.)

The Report of the Royal Commission on the General Hospitals of Hobart and Launceston and the Hospital for the Insane at New Norfolk.

The report of the Royal Commission on the General Hospitals of Hobart and Launceston, and Hospital for the Insane at New Norfolk has been presented to Parliament. The Commission consisted of Dr. Elkington (Chief Health Officer), who was appointed chairman, Mr. Seager (Administrator of Charitable Grants), and Mr. Hughes (Audit Inspector). The report, which is a voluminous document, is divided into two main sections—one dealing with the General Hospitals, the other with the Hospital for the Insane. The Commissioners state that although impressed with the extent and excellence of the general work accomplished by the hospitals, a time has come for an alteration of the system pursued, both in the constitution and administration of the institutions. They lay great stress on the fact that the primary purpose of a public hospital is to afford treatment to the poor and destitute, not for those who can afford to pay for outside treatment and attendance, and state that they have clear proof of the fact that hospital abuse prevails, more especially in the Launceston institution, which competes with private medical practitioners, nurses, and druggists. They point out the large amount of public money granted to the hospitals, the loose conditions in which this State aid is so freely given, and the financial apathy of the boards of management, as shown by their failure to tap outside sources of income. The expenses of the hospitals are found to be unnecessarily high, the cost per bed being from £75 to £85 per annum, compared with £49, the cost of the Ballarat Hospital; and the Commissioners are of opinion that the expenses can be very materially lessened with the preservation and even increase of efficiency. The Commission recommends very extensive alterations in the system, from the boards of management downwards.

The medical profession is thoroughly in accord with most of the Commission's report and recommendations; indeed, for years it has been seized of the necessity for reform. In Hobart, fortunately, the difficulty has never been an acute one, thanks to the readiness of the board of management to listen to the views and suggestions of the profession; but in Launceston the reverse has been the case. For years the members of the profession have been attempting to bring about reforms, but the board has deliberately set its face against any such changes, and has publicly flouted and insulted the profession. It is stated that the same board has, instead of checking, promoted hospital abuse, and that some of its members and hospital officials have touted not merely for the hospital but for the surgeon superintendent's private practice, which the board has seen fit to allow that officer. The proposals of the Commission, therefore, agreeing as they do with the views previously propounded by the profession, give great satisfaction, more especially that one dealing with the composition and manner of election of the boards of management.

Hospital for the Insane at New Norfolk.—The Commissioners, while commending the medical superintendent, assistant medical officer and staff for the general good order and management of the institution, find so many faults in the general equipment of the asylum that it is apparent that the present institution and the present system is a disgrace to the government of the State.

The lunacy service has been systematically starved, so that however capable and zealous the medical officers may have been, the care of the insane has been carried on not only on unscientific, but, what is worse, on inhumane lines. When we read that some of the asylum wards are unfit for habitation by human beings, that the lack of accommodation prevents proper classification of the patients, that the lack of this accommodation, as well as of proper staffing, leads to an extraordinary amount of restraint, that the proportion of attendants to patients is too low, that these same attendants are worked too long hours and given insufficient leave of absence, and that the training of attendants is defective—we as well as the Commissioners cannot but agree that these conditions alone are sufficient to "form a serious reproach upon the State system of dealing with the insane in Tasmania."

It appears that during the 12 months 64 patients had been submitted to "restraint, a degrading and even harmful process, for a total period of 163,222 hours, or over 18 years in all, the average number of days of restraint per individual for the year being 106. To this must be added 159 days, or over five months, of seclusion, a measure which should be, and in most other places is, as unnecessary and obsolete as restraint has proved elsewhere." Comment is needless.

Early in the progress of their investigation the Commissioners found that laxity existed in the stores department of the asylum, and a careful examination by one of their number revealed the fact that wholesale tampering with the stores of food and stimulants existed. Objection is taken to the system by which the chairman of the official visitors takes such an important part in the executive of the hospital and to the request of that gentleman for an allowance of £50 per annum. As the holder of this position is also Government veterinary surgeon, surgeon to the Government railways, and examiner of vision and hearing for railway service, the objection of the Commissioners is apparently well grounded.

A detailed financial statement is given, which shows that by the suggested changes £4203 of Government grant will be saved annually in the General Hospitals, which would be sufficient in seven years to pay the £25,000 required for new buildings at New Norfolk; in addition to this, further savings might be effected.

The Commissioners are to be congratulated upon their report, which, couched as it is in very moderate language (for many of the existing abuses are really minimised), gives evidence of careful observation and sound judgment. They have performed an onerous and not altogether a pleasant duty faithfully and well, and deserve the public thanks. If their advice is followed by the Government, what is a most serious reproach in the hospital and asylum system of Tasmania will be removed; but it is upon the Government that the responsibility rests of giving effect to these recommendations, and it is to be hoped for the credit of the State that it will not shirk this responsibility.

Rumours are already current that all kinds of underground engineering are at work and that the Government intends to pigeonhole the report. It is to be hoped that if such an attempt is made public opinion will force its hand. The press of the State has given a very favourable reception to the Commissioners' report. The *Hobart Mercury* and the *Launceston Daily Telegraph* have reviewed it, while the *Launceston Examiner* has administered a severe castigation to the Launceston Hospital Board for the abuse which it has promoted. One dissentient voice has so far been heard, however—that of the chairman of the Launceston Board. This gentleman's knowledge of hospitals and asylums consists in his having been for some years a member of this particular board, and in a press interview he sums up the Royal Commission's report as "full of inaccuracies and very diffuse, loosely constructed, and plentifully adorned with padding." Criticism even when hostile is ever welcome, if it comes from an expert, so that with all due deference we submit this opinion of the chairman of the Launceston Board to the notice of Dr. Elkington and his colleagues, not doubting that they will give, *ipse dixit*, that attention which the *ex cathedra* utterance of so eminent an authority demands.

THE DISINFECTION OF HANDS.

To the Editor of the Australasian Medical Gazette.)

Sir,—May I beg of you a little space to reply to your critic's remarks in your last issue upon my work on "Asepsis." Asepsis may appear to him to be the "hobby" of an "enthusiast," but to those unfortunates who have to undergo operation the "hobby" may become a matter of life and death. He informs your readers that my "impressions" are culled from aseptic champions. As a matter of fact, my impressions were culled from a two years' residence in the Prince Alfred Hospital, where I constantly witnessed the failure of the antiseptic system, and from a six months' residence in the Rotunda, where I witnessed the complete success of the aseptic system.

In the matter of rubber gloves, your critic entirely distorts my statements. I nowhere in my work advocate that the surgeon should wear rubber gloves in "difficult abdominal cases," but I do emphatically state that he should wear them in opening abscesses or making incisions in cellulitis. My words are: "Of course the safety as regards infection will be increased if the operating surgeon himself wear gloves, but there can be no doubt that they hamper him more or less seriously in operations requiring a delicate manipulation." I nowhere advise the use of rubber gloves in aseptic cases, and even in speaking of septic ones I make the reservation that in some difficult operations the surgeon may feel it his duty not to wear them. Another objection raised by your critic is that some surgeons are so clumsy that they cut the gloves with scissors and even nip them up with forceps. The moral of this is obvious. Nevertheless many dexterous surgeons, such as Halstead, use them for the most difficult dissections.

Further on the writer states that "nurses should be taught to dress septic cases without soiling their hands." Will he please explain why nurses must not contaminate their hands, yet surgeons may do so with impunity?

Your critic also accuses me of *insinuating* that Lockwood's method failed in two cases to sterilise hands. I insinuated nothing; but I did state in the plainest of English that Lockwood's method did signally fail in two instances to render the hands free from a particular strain of coccus.

We are also informed that "the permanganate method of Schimmelbusch . . . is simple and absolutely effective." The fact that the permanganate method is not Schimmelbusch's is a detail, but the statement that the method is "absolutely effective" is simply amazing. Professor Harrington, in the *Annals of Surgery* for October last, states that after experimenting with 22 different antiseptics he finds that none of these are efficient, and states that permanganate is *the least efficient of any*. Leedham-Green, in *B.M.J.* for October 1st, 1904, says: "I was not, therefore, surprised to find that aqueous solutions of carbolic acid, lysol, perchloride or biniodide of mercury are practically powerless to affect the micro-organisms situated on the hands." Further on he says: "After the hands have been well washed in soap and water, they are soaked in a hot saturated solution of permanganate of potash; they are then rubbed with a hot saturated solution of oxalic acid." After this he finds "that in one-half of the cases the hands proved to be strongly infected." Lest these authorities should be condemned by your critic as enthusiasts with hobbies, I may inform him that Professor Kocher has, upon clinical grounds, come to the same conclusion. Your critic says: "The surgeon who really is a surgeon knows all the refinements and details of his science from the perusal of the detailed accounts of scientific workers." One can only ask—Why, then, does he not peruse them? He states, with truth, that Schimmelbusch was one of the soundest aseptic surgeons that ever lived. Therefore, we are not surprised to find that Schimmelbusch says: "Dissolving off the dirt in which the organisms lodge by the use of as much warm water and soap as possible, supplemented in some cases by that of alcohol or ether, and removing it by scrubbing with brushes and rubbing with towels will always be the most important elements in disinfection of the skin. . . . Chemical disinfectants only play a subordinate rôle here."

In my book I make three categorical statements with regard to the disinfection of hands:—

1. That no method secures absolute efficiency.
2. That the mechanical part of any method is the more important.
3. That intelligence is required for the application of any method.

I challenge your critic to disprove any of these statements. I also invite him to answer the following questions:—

1. If antiseptics are efficient, why has the mortality from puerperal fever increased since the introduction of antiseptic midwifery?
2. If chemicals are efficient to sterilise the hands, which are notoriously difficult to disinfect, then why does he not also trust to them to disinfect instruments and dressings which are comparatively easy to disinfect?
3. Is it the function of a critic to play the part of Advocatus Diaboli and dwell on every supposed defect in a book, ignoring the rest of the work?

The criticism throughout is written in a patronising and supercilious style which is quite in keeping with the writer's lofty disregard of facts. Finally, I ask the Editor whether he is prepared to endorse the statement that hands can be sterilised in any simple and absolutely effective manner, and, in particular, that the permanganate method will produce this result?—I am, etc., **ARTHUR S. VALLACK.**

Bowral, July 22nd, 1905.

[We have submitted the above letter to the reviewer, who declines to enter upon a public correspondence with Dr. Vallack. He advises the readers of the GAZETTE to read the book and the review of it published in our July issue and form their own conclusion.—ED. B.M.A.]

AN EFFICIENT TOOTHBRUSH.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—In your issue of July 20th Dr. Turner advocates a toothbrush of a quaint shape. This and other variations from the ordinary straight brush were made and sold in London and elsewhere 20 years ago, but owing to their not producing better results than the straight brush they are now practically unknown. The ordinary straight brush, if properly and intelligently used, will cleanse the teeth thoroughly, as far as any brush can do so. If Dr. Turner will recommend his patients to use a stiff straight brush, with a tooth powder or paste, and follow this up by the use of floss silk and a toothpick, he will find that very few of his patients will suffer from tender gums or uncleansed interspaces. The soft toothbrush is a delusion and a snare for the unwary.—I am, etc.,

R. FAIRFAX READING, M.R.C.S., L.R.C.P., L.D.S.
Sydney.

THE TREND OF MODERN MIDWIFERY.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—Dr. Purdy's (N.Z.) interesting paper on the "Trend of Modern Midwifery" makes me reminiscent, and compared to his clean sheet mine has some blots. For instance, in 20 years he has had no puerperal fever; in 15 I've had two fatal cases and several sapræmias requiring intra-uterine douching. In 15 years he has had no phlegmasia dolens; I've had half a dozen in that time. He has only seen one mastitis in 15 years; I've had two mammary abscesses in a month and numerous inflammations. (I should much like to know his treatment of sore nipples.) Dr. Purdy extracts the placenta manually in 50 per cent. of his cases, and never feels easy in his mind unless he does it. I never do it unless driven to it. I was taught to let the uterus do it, and somehow the "old teaching" seldom fails. Dr. Purdy uses the forceps in 60 per cent. of his cases. Well, I think we are all getting along with our forceps percentage. But the "old teaching" of time and chloral in judicious combination is worth holding on to now and then. I was quite prepared to read that Dr. Purdy never had a case of torn perinæum, but he does not mention it at all. I conclude, therefore, that the "Trend of Modern Midwifery" is powerless to stop it. I know I am. And I feel concerned about the way I do my work when I read in the *B.M.J.* of men who never have torn perinæum in their practice. I should like to meet those men. Dr. Purdy says sepsis is not known in his work. I find it in mine, perhaps because I look for it. One portion of my sheet is as clean as Dr. Purdy's. He never sees post-partum hæmorrhage; neither do I, and this I attribute to Halliday Croom's "old teaching" of keeping my hand on the uterus after the child is born until I feel it hard and firm. On the whole, Dr. Purdy's paper has done me good. I shall read up the "Trend of Modern Midwifery" while practising the "old teaching."—I am, etc.,

Sydney. PRACTICE.

ORAL SEPSIS.—"EUMENTHOL JUJUBES" (HUDSON).
MADE IN AUSTRALIA.
A Gum pastille containing the active constituents of well-known Antiseptics, Eucalyptus Globulus, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic, prophylactic, reducing sensibility of mucous membrane. W. A. DIXON, F.I.C., F.C.S., Public Analyst of Sydney, after a comparative test of "Eumenthol Jujubes" and beech-wood Creasote, reports that there is little difference in their bactericidal action. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creasote." G. HUDSON, Manufacturing Chemist, Ipswich, Queensland. London Agent: W. F. PASMORE, Chemist, 320 Regent-street, W.—[ADVT.]

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, Medical Officer of Health, reports for the month of July that the registered deaths of residents in the metropolitan municipalities (Sydney and suburbs), exclusive of patients in the Gladesville and Callan Park Hospitals for the Insane, numbered 505. This number corresponds to an annual death rate of 11·46 per 1000 of the estimated population, which rate, corrected by the inclusion of the metropolitan share of the deaths in all hospitals for the insane and benevolent asylums for the aged and destitute, becomes 12·38 per 1000. Diarrhœal diseases (diarrhœa, dysentery and enteritis) were responsible for 20 deaths, which is exactly equal to the quinquennial average mortality from these causes for the month of July; 14 of the deaths were infantile. The principal zymotic diseases, exclusive of diarrhœa, caused 15 deaths, of which 3 were due to scarlet fever, 4 to diphtheria, and 8 to typhoid fever. The mortality from typhoid fever has been unusully large for July, though the incidence of the disease has been no greater than usual. Four deaths were attributed to influenza and 8 to puerperal fever. Phthisis caused 37 deaths, or considerably less than the average mortality (45) for July. Respiratory diseases caused an average mortality: 34 deaths were attributed to bronchitis, and 46 to pneumonia. Bright's disease and diseases of the heart and blood vessels were very fatal. No less than 40 deaths were attributed to the former cause, while diseases of the heart and blood vessels accounted for 78 deaths, mostly in persons of advanced age. Cancer caused 31 deaths. Deaths of infants under one year of age numbered 91, a figure which corresponds to an infantile mortality rate of 80 per 1000 births. The principal causes of infantile mortality were: Prematurity, 22 deaths; developmental diseases, 27 deaths; respiratory diseases, 15 deaths; enteritis, 13 deaths. Notified attacks of notifiable infectious disease numbered 155, of which 57 were due to scarlet fever, 66 to diphtheria, and 32 to typhoid fever.

The Birth Rate.—During the month of July 1142 children were born in the metropolitan area (585 males and 557 females), and 544 persons died (297 males and 247 females), the excess of births over deaths being therefore 598. The illegitimate births numbered 112, comprising nearly 10 per cent. of the total births, which is said to be slightly below the average. The birth record is 47 above the average for July during the previous five years.

Glebe Island Abattoirs.—The Board of Health has furnished a report on the condition of the Glebe Island Abattoirs, in consequence of the complaints made that the abattoirs under the existing arrangements, are a great nuisance to the residents in the neighbourhood. It was stated by the health authorities that steps are being taken to remedy several defects. New boilers are to be put in, and thus enable the work of the establishment to be done by two instead of three shifts. Recently new machinery was erected at a cost of £1500, and new pighouses costing £1200 were constructed. In addition to that, new sheep-pens have been built. The more modern machinery is for the purpose of treating the waste products, and it is expected it will largely do away with the disagreeable odours. This machinery will have the effect of doing away with the punt to which so much objection is taken by the residents. Arrangements have also been made to collect and destroy the noxious vapours arising from the boiling-down operations.

South Australia.

Central Board of Health.—At a meeting of the Central Board of Health, held on July 19th, the Inspector of Food and Drugs furnished reports on the condition of the milk supplied at Port Pirie, Strathalbyn, and Mount Barker. At the latter places the milk, on examination, was found to be of good quality, but in the case of Port Pirie, where 12 samples had been obtained, 7 were found to be adulterated to the extent of 4, 4, 7, 8¾, 13, 14, and 19 per cent. of added water. Attention of the local authorities to be directed to the advisableness of taking advantage of their power of appointment of an analyst under clause 11 of the Sale of Food and Drugs Act, 1882. The infectious diseases returns showed 8 cases of scarlatina at Port Adelaide, 6 at Yorketown, 2 at Adelaide, and 1 at each of the following places:—Cockburn, Glenelg, Hindmarsh, Inkerman, and Bay-road. Three cases of pulmonary tuberculosis at Kent Town, two at Adelaide, two at Glenelg, two at Port Adelaide, two at St. Peters, and one at each of the following places:—Parkside, Gawler, Unley, Alma Plains, and Goodwood. Two cases of diphtheria at East Adelaide, and one at each of the following places:—Adelaide, near Minlaton, Port Adelaide, Hackney, Wayville, Gilberton, and Lockleys. Five cases of typhoid fever at Port Adelaide, one at Kensington, and one at Clare. One case of erysipelas at each of the following places:—Adelaide, College Park, and York. One case of puerperal fever at Wallaroo. The infectious diseases mortuary returns showed four deaths from pulmonary tuberculosis at Adelaide, three at North Terrace Home, and one at each of the following places:—Willaston, Thebarton, Sturt, Booleroo, Centre, Cottonville, Hectorville, Norwood, Hindmarsh, Exeter, Cheltenham, Walkerville, and Parkside. One death from enteric fever at Gawler.

The Milk Supply of Adelaide.—A special meeting of delegates from the local boards of health which contribute to the dairies and dairy cattle fund was held at the Adelaide Council Chamber on July 30th, under the presidency of Alderman Wells. The chairman said that when the Health Act came into force local boards of health were given certain powers to deal with the meat and milk supplies. In order to give effect to these clauses they found it convenient to combine forces and obtain the services of a thoroughty trained officer to supervise that important branch of public health work. Their agreement with Mr. Morris expired in October, and they had met to consider the advisableness of renewing it for another term of five years, so that the inspector might continue his excellent work. When Mr. Morris took up his duties in December, 1900, the conditions under which milk was produced were far from satisfactory. That he had succeeded in bringing about a great change for the better would be apparent to anyone who remembered the conditions of five years ago. This result had been accomplished with a minimum of friction and worry to local boards of health and dairymen. The Adelaide officer of health, Dr. Borthwick, testified to the importance of Inspector Morris's work in its relation to the public health. It tended to reduce the infant mortality by the production of a milk which did not go bad so readily in the hot months of summer, to prevent the spread of infectious diseases by minimising the opportunities of the milk becoming infected in its handling or transit, to eliminate one of the sources of tubercular disease by the removal of diseased cows from the herd, and to ensure a safe article of diet for the public generally and invalids in particular. These results were attained by Inspector Morris's supervision of dairies, aided by the local sanitary inspectors, and by his work in the laboratory, and could only have been brought about by the combined action of the various local boards in the metropolitan area. This combined action made the cost of inspection to individual boards a comparatively small matter, and the improved milk supply had been attained without increasing the price of the milk to the consumers. The Port Adelaide officer of health, Dr. C. Bollen, also strongly advocated the reappointment of Inspector Morris. After some discussion it was agreed that Inspector Morris should be reappointed for a further term of five years at the same salary.

Victoria

Medical Inspection of School Children.—Dr. R. Jones, Medical Officer of Health to the Eaglehawk Borough Council, has submitted an important and far-reaching scheme providing for the periodical medical inspection of State school children. The Health Officer's idea is that a medical man should attend the schools daily, and that in the event of the teacher having doubts as to the health of any scholar, the doctor should inspect the child and inform the parents, with a view to their calling in medical assistance, if necessary. The child, of course, would not be allowed to attend the school if the illness were of an easily transmissible character. The council is willing to bear the expense of the inspections. The Eaglehawk Council approved of the scheme, and sent it forward to the Board of Health. When the matter was brought before the Board of Health, the chairman (Dr. Norris) said Dr. Jones had pointed out that medical inspections of school children had been carried out on the Continent and the United States for some years, and was now being taken up in England, attention to the matter having been stimulated by the reports of physical degeneration in adults made apparent by the number of volunteers who offered for service during the Boer war, but were rejected. While the board could approve of the principle of such inspections, Dr. Norris said that there was a danger of such inspections becoming perfunctory. It was decided to carefully consider the proposal before giving the board's confirmation to it, and the matter was adjourned for a fortnight.

Plague in New South Wales.

SYDNEY.

The number of rodents destroyed has been between 2500 and 3000 a week, of which, as usual, from 700 to 800 taken by the intelligence staff have been examined in the laboratories of the Department of Public Health. Among them, nine infected with plague were discovered. With the exception of one mouse all came from that point on the Darling Harbour wharf-line, eastern side, which is marked by the North Coast S.S. Company's wharves and north of it. The specimens comprised the three species of mus, namely, decumanus, rattus, and musculus. One further case of plague has occurred. (18) W.C., male, *æt.* 47, a ratcatcher, employed by the local authority under the Public Health Act for the City of Sydney; attacked July 12th. On several days immediately preceding the date of attack he had collected decomposed rats from one premises, and many other rats from other places, near the wharf-line. During the current epizoötic three ratcatchers have suffered (one for the second time, as previously noted), and we are informed that the total number attacked in and from 1900 is large enough to be noteworthy, although probably not proportionately large when compared with the number of men from time to time thus employed.

NEWCASTLE.

No further cases have occurred. No plague rodent has been observed since July 6th, although collection of rats by the intelligence staff, and to some small extent by the public, has been industriously continued. Payment of the capitation to the public has been stopped, but the intelligence staff continues at work.

The Health of Melbourne.

Abstract of the Report of the Officer of Health (Dr. James Jamieson) for the year 1904.

The estimated population, in the middle of the year according to the Government Statist, was 67,760, an increase of 500 on the previous year. Taking this as the basis of calculation, the mortality for the year was in the proportion of 12·82 per 1000, an exceptionally low rate, considerably below that of 1903, viz., 13·8.

The mortality from epidemic diseases was again low, though slightly higher than in 1903 The deaths from typhoid numbered 6; from diphtheria and croup, 12; from scarlet fever, 3; from whooping cough, 2; and from influenza, 11, or a total of 34; influenza accounted for about one-third of the total epidemic fatality. This disease seems to have taken on a settled endemic quality, with liability to alternate wide and limited spread, for reasons that are yet unknown The cases notified under the Act were:—Scarlet fever, 165; diphtheria, 142; typhoid, 58. Scarlet fever and typhoid were slightly less prevalent than in 1903, and diphtheria more. The outbreaks of scarlet fever and diphtheria had to a large extent subsided toward the end of the year. The figures of notification, as compared with the number of deaths, show that the case mortality was extremely low. For a good many years scarlet fever, in successive epidemics, has been of a mild type, and diphtheria has had its dangers greatly lessened by the use of the antitoxin treatment.

Typhoid Fever.—Almost year by year, since 1891, there has been a continuous decline in the prevalence of typhoid, a condition of things contrasting remarkably with what had existed previously, when a severe outbreak occurred every four or five years, with a regular high level of prevalence. As the population has not varied much, in the period under review it appears that the typhoid mortality has fallen to about one-fifth of its measure less than 20 years ago. A combination of causes must have contributed to bring this about—better attention to milk and water supply among them, but the main credit must be ascribed to the sewerage system. By cleansing the surfaces of yards, lanes and streets of foul water of all kinds, the risk of contamination of food and drink by infected dust has in particular been reduced to a minimum.

Diphtheria.—There has been a similar lowering of the death rate in diphtheria, but we cannot ascribe this marked change for the better to the same causes as in the case of typhoid. It is more distinctly contagious, spreading readily from child to child, in school or other meeting places. Probably, therefore, a considerable share in the improvement may be credited to the supervision now exercised over cases during illness, and the cleansing and disinfection carried out after recovery.

Tuberculosis.—The importance of tuberculosis as a cause of sickness and mortality is greater than that of the epidemic diseases, since year by year the fatality it produces exceeds about fourfold that of all of them taken together, on the average of years. Of two periods, ten years apart, 1890-94 and 1900-04, the first shows an average annual mortality of 204, and the second 142. The reduction is therefore considerable, and it is especially satisfactory to note the comparatively large decrease in the latest year. Many causes, in the way of sanitary improvement, have contributed to bring about the decline of mortality above noted. For nearly five years the "Crusade against Consumption" has been carried on in the city with increasing strictness. All discovered cases, and these have been more numerous since consumption has been proclaimed a contagious disease under the Act, have been kept under supervision. Printed and verbal instructions are given, visits paid to those living in private houses; and, in case of death or removal, cleansing and disinfection have been carried out as seemed necessary. No great effect would seem to have been produced up to 1903, if we may judge from the figures for that year and those just preceding. Perhaps little more could have been expected, from the slow course of the disease in most cases, and also because the precautions described were hardly taken at all, till quite lately, in any other district of the State. Now that such precautions are more widely adopted, and more cases come under control, we may expect a more decided lowering of the fatality, and the very marked decline in 1904 may represent the first distinct fruits of these efforts. But until fuller provision is made for the isolation and care of advanced cases, in properly arranged institutions, there cannot be the full amount of good expected.

Diarrhœal Diseases.—The mortality from diarrhœal diseases, which is always to some extent dependent on seasonal influences, was unusually low, the number of deaths recorded being only 42, as against 80 in 1903, and 109 in 1902. The summer of 1903-4 was milder and moister than usual, and this contributed to the result. The mortality from these diseases falls to a greater extent among young children, for whom milk is the staple article of food, and there has been marked improvement in the milk supply of the city of late years.

The number of births registered in the year, exclusive of those in the Women's Hospital, was 1175, considerably below the average of the last few years. Deducting also from the total number of deaths under one year those occurring in the same hospital, the number 98 is got, giving the remarkably low rate of 83·4 per 1000 births. Last year the rate, 105 per 1000, was unprecedently low. There has been through the last five years a steady, if not quite uniform, gain in the saving of infant life, and thus some compensation got for the fall in the birth rate. The infant mortality will always vary to some extent with prevalence of epidemics.

The deaths from the chief causes other than the epidemic diseases, which really produce quite a small proportion of the whole, were:—Tuberculosis, 116; diarrhœal diseases, 42; pulmonary diseases (other than consumption), 97; circulatory diseases, 91; nervous diseases, 61; urinary system diseases, 83; cancer, 53. Tuberculosis has now been placed on the list of notifiable diseases, and cases in increasing numbers are reported, though they are still mainly of patients under treatment at the public hospitals. The extension of notification will doubtless continue, even though there is a very general opinion that hardship might readily accrue, in many early cases where occupation can still be followed, if much attempt at close supervision were made by the authorities. And even in more advanced cases there can be no doubt that popular recognition of the contagious character of consumption has had the effect of making the lot at least of poorer patients much harder. During the year 126 cases of consumption came under observation either on account of death or by notification, and in all cases steps were taken with the view of preventing or lessening risk of infection. As many as 80 houses were cleansed, disinfected, and renovated according to requirements, in consequence of the occurrence of consumption or some other form of infectious disease.

During the greater part of the year the Infectious Diseases Hospital has been open for the reception of cases of diphtheria and scarlet fever. So far its accommodation has not proved inadequate, for the double reason that both epidemics were on the decline toward the end of the year, and that several municipalities have not yet made use of their privileges in connection with it. It is gratifying to find that the committee of management is moving in the direction of abolishing the rule for making a charge for admission, payable by patients or their friends. It is the rule in England and most other countries to give free admission to all suitable cases, on the ground that such admission is more with a view to the protection of the public than for private benefit.

The grant of £50 to the Bacteriological Laboratory at the University was continued in 1904. The chief work done was the continuation of the examination of the water supply. Another important question taken up was the examination of samples of milk, in search for the tubercle bacillus, a repetition of work done two years ago. It was gratifying to find that none of the samples showed sign of such specific contamination. It was incidentally shown also that the milks were purer than at the previous inquiry, in respect of other forms of contamination.

During the year a large number of samples of milk and other food articles were taken for analysis by the public analyst. On the whole it has to be noted that there is a steady diminution in the adulteration, in the stricter sense of the word, of milk and the commoner food articles. But there is evidence that the use of preservatives of various kinds is steadily increasing, so as to have become actually a crying evil. It is most desirable that there should be fresh legislation to assist in guarding food supplies from all kinds of contamination, adulteration, or deterioration. The coming into force of such measures will be all the easier, and ultimately more effectual, if framed on lines somewhat less drastic than those recently put forward.

The quarterly inspection of cows depastured in the parks adjacent to the city was continued during the year by Mr. Rudduck, veterinary surgeon, and his reports have been favourable as regards the condition of the animals and the comparative absence of signs of disease. The sales at the Cow Market are regularly supervised, and care is thus taken that all meat sold has been duly inspected and branded in accordance with the Act.

The condition of premises used for carrying on "noxious trades" has received a large amount of special attention during the year. The difficulty has been chiefly with those establishments which are engaged in "boiling down" and the manufacture of animal manures. Great improvements, however, have been effected of late years, and continued during 1904. The two largest establishments have now introduced drying machines, and have made provision for preventing the escape of noxious fumes from these and from the boiling-down vats. It is desirable that the small establishments on the abattoirs reserve, at which the waste materials from the slaughter-houses are boiled down, should be more directly under the management and control of the Corporation, newer buildings being erected, and the latest machinery obtained, so that the operations may be conducted promptly and in the most economical and inoffensive manner. There is at last prospect that the buildings at the abattoirs will soon be connected with the sewerage system. This should lead to a vast improvement, as all fouled liquid will thus be conveyed away, and long standing contamination of the saltwater river thus greatly lessened.

During the year the work of inspecting houses, in respect to their sanitary condition, was continued. Those condemned or declared in need of repair numbered 65, and of these 57 were repaired to the satisfaction of the officers, 8 being pulled down.

New South Wales Lodge Practitioners Defence Fund.

SUBSCRIPTIONS have lately been received from the following:—Drs. Asher, Blackwood, Crago, Dight, English, Gillies, Hardcastle, Kerr, Lipscomb, Machattie, MacPherson, Palmer, Shaw, Stephens, Thane, and Tudor-Jones. Those who have not yet subscribed to the fund are respectfully invited to do so.

W. H. CRAGO, Hon. Treas.

Proposed Hospital for Consumptives at Eckersley.—As announced in our last issue, the New South Wales Government have decided to adopt the Eckersley site for the erection of an institution to accommodate the 170 cases of chronic pulmonary tuberculosis which are at present housed at the Liverpool Asylum. The Chief Secretary is now awaiting a report as to the probable cost of providing the necessary accommodation; but he is convinced that this will be the cheapest and most effective way of relieving the overcrowded state of the wards at Liverpool. At present the consumptive wards there are so much overcrowded that the air space per patient is only 300 cubic feet, instead of the 1000 or 1500 cubic feet which is the minimum to be allowed. We are glad to know that the Government appear to be taking up this matter in real earnest, and that before long we shall have an institution to which cases of chronic pulmonary consumption can be sent with some hope of relieving their sufferings.

NOTE.—We desire to notify the profession that Mr F. W. Loxton's advertisement, which has been appearing in the reading matter in the centre of this journal, will in future be placed on the inside of the front cover, where will be listed each month twenty of the most attractive practices then for sale in the Australian States, Tasmania, and New Zealand. Mr. Loxton wishes us to state that those doctors intending to visit the Congress should make early application for L.T.'s in order to avoid disappointment.

HOSPITAL INTELLIGENCE.

Jubilee Sanatorium, Dalby, Queensland.—The following is an extract from the yearly Government report extending from July 1st, 1904, to June 30th, 1905:—Number of patients remaining from previous year, 29; admitted during year, 81: total, 110. Number discharged, 82; remaining at end of year, 28: total, 110. The average daily residence of patients has been 27·6. Of the 82 cases, ten were found to be non-tubercular; the remaining 72 consumptive cases are classified as follows:—Incipient: 8 cured. Pronounced incipient: 9 cured; 1, I.S.Q. (this case had acute rheumatism as a complication); total, 10. Softening: 1 cured; 15 improved; 11 I.S.Q.; total, 27. Cavity: 2 cured; 10 improved; 15 I.S.Q; total, 27. In the cured cases with an arrest of the disease there was an average increase in weight of 12¼ lb. In the improved cases, with an amelioration of the symptoms, there was an average increase in weight of 11¼ lb. The daily average residence of the cured or arrested cases was 125 days, and of the improved cases 162. Every endeavour is made to keep in touch with the cured cases after their discharge, but naturally with increasing difficulty as time passes on. Of those dismissed as cured during 1901, 6 have been lost sight of, and 5 (2 males and 3 females) have relapsed. The remaining 10 (7 males and 3 females) were doing well when last heard of, and from some the bulletins are of quite recent date. They are earning a living as follows:—The three women are engaged in domestic duties, and of the seven men, one is a ship steward, one a quarryman, one a teamster, three at light employment, and one left Australia in perfect health in charge of horses for the war in South Africa, where he died of enteric fever. Of those dismissed as cured in 1902, 5 have been lost sight of and 1 has relapsed. Of the remaining 11 (7 males and 4 females), who were enjoying good health when last heard of, the four women are engaged in domestic duties, and of the seven men, four are clerks, one a tobacconist, one a tram-conductor, and one a groom. [Note.—June 30th, 1903.—From a letter just received, one of the cases discharged in 1902, though he is still earning his living as a clerk and feels well, examination of his chest by a medical man reveals active disease.] Of the 22 cases dismissed during the year 1903-4, one has been lost sight of, seven have relapsed, and the remaining 15 were enjoying good health when last heard of, and are earning their living as follows:—One is a miner, one a carpenter who has gone to the Cape, three are domestics, two are working on a farm, one is a dressmaker, one a waitress, one a school teacher, one a nurse in a private hospital, one a tailor, one a groom, one a railway official, and one a clerk. Of those discharged as cured (20) during the past year, their dismissal has been so recent that any record of them would have little or no clinical value.

Lady Lamington Hospital, Brisbane.—The new buildings of the Lady Lamington Hospital, situated in Leichhardt-street, Brisbane, were opened last month by Lady Griffith, in the presence of a very large assemblage of ladies and a number of gentlemen. Sir S. W. Griffith (Chief Justice of Australia) and Lady Griffith were present. The Hon. J. F. G. Foxton opened proceedings. He said he had been deputed by the committee of the hospital to formally request Lady Griffith to perform the opening ceremony. It was just a week short of 12 months since the foundation stone of that building had been laid by Lady Northcote. Having regard to the fact that Lady Griffith, with Lady Lamington, had been largely instrumental in the foundation of the hospital, and as its president had always taken the deepest intesest in its welfare, and in establishing it in its own premises free of debt, they would agree that it was extremely appropriate that she should perform the opening ceremony. Sir S. W. Griffith said it was not quite five years since a few ladies had met at Government House at the invitation of Lady Lamington to consider the expediency and practicability of establishing in Brisbane a hospital for the diseases of women. They thought it would be practicable, a committee was formed, appeal was made to the public for funds, and it was found that the idea was very warmly received. They had been very modest at first, having taken a small cottage to accommodate four beds, and it had been with some trepidation that they went thus far; but in view of the immediate demands made upon the institution, they found this would not do at all, and contented themselves with paying one week's rent. They then took the place they had occupied for the last four years or more, and where they had done a deal of good work. During the period the hospital had been in existence, more than 500 patients had been admitted, most of whom would have gone on suffering to death, but of whom some 90 per cent. had been discharged cured. The committee having been encouraged by generous assistance from the public, had been able to contemplate the building of the premises to be opened that day, and though the cost was nearly £5000, they were able to open them free of debt, and they were able also to begin their new career with a credit balance. Lady Griffith desired him to thank them for the honour conferred in asking her to declare the hospital open. The Hon. J. F. G. Foxton then presented Lady Griffith with a small golden key bearing the letters "L.L.H.," and the date, "18/7/05," to be worn as a souvenir of the ceremony. At the annual meeting held directly after the ceremony, the Mayor complimented the committee and the citizens of Brisbane on the work they had accomplished in having the building completed at such an early date. The fifth annual report referred to the marked progress and gratifying success that had been attained in both administrative and surgical work. Reference was made to the signing of the contract for the new building on July 1st, 1904, by Lady Griffith, the laying of the foundation stone by Lady Northcote on July 2nd, and the maintained interest of the public. The report stated that everything had been done as far as possible by the committee and medical staff to bring the arrangements of every department of the hospital up to date, and to make it worthy to rank among the women's hospitals of Australia. The buildings were inspected by the Government Architect on June 2nd, and the keys handed over to the committee on the 16th of that month. The medical report showed that 109 patients had been admitted during the year, the average stay in the hospital being 24·23 days. Nine hundred and twenty-two visits have been paid by out-patients. Three patients have died. All of these were admitted to the hospital in a hopeless condition, two of them being cases of malignancy. Reference was made to the untiring energies of the medical staff; of a number of critical operations, not one had proved fatal. Many letters had been received from patients and friends of patients, expressing gratitude for care during their stay in the hospital. The annual balance-sheet showed that the receipts for the year, including Government endowment of £612 15s 4d, had totalled £1776 8s 1d. The total expenditure had been £805 7s 10d; balance to fixed deposit, £535; current account, £435 9s 3d. The building fund account showed a balance from last year of £4047 7s 7d; receipts from garden fête, £1514 4s 10d; other amounts £126 14s 1d; total, £5688 6s 6d. After payment of accounts to contractor and for furnishing, etc., there was a balance of £1070 4s, of which £535 4s 9d was due to the contractor, together with a sum for architects' fees. It was pointed out, in conclusion, that as considerably more furniture would be required, the entire balance would be necessary to discharge liabilities.

Melbourne Hospital.—At the annual meeting of the governors of the Melbourne Hospital held in the Town Hall last month, the report presented stated that for the first time in many years the revenue for the 12 months exceeded the expenditure. The number of patients treated at the institution was 23,543. Of these, 4745 were in-patients, 11,101 were out-patients, and 7697 were casualty cases. There were 417 old age pensioners (202 in-patients and 215 out-patients), and of the casualty cases 839 were brought to the institution by the police. In the new wards for septic diseases 187 patients were treated. Except in cases of extreme urgency, patients suffering from diphtheria and scarlet fever had not been recently received at the Melbourne Hospital. Nevertheless the number of such patients received during the year was 171. From July 1st, 1904, to June 30th, 1905, no fewer than 189 persons—103 males and 86 females—suffering from consumption were admitted, and the total number of days these patients had been in the wards up to June 30th was 7039. The number of consumptive cases still remaining in the institution on June 30th, 1905, was 18, and the total number of days they had been in the wards was 1505. The committee considered that the institution should not be called upon to provide for these patients, since they were for the most part incurable, and occupied beds which should be available for other cases. The condition of such patients when they are brought into the institution, however, was such that—seeing that no provision was made for them elsewhere—it would be inhuman to refuse them admission. It was hoped that the Government would shortly take steps to relieve the hospital of these cases, for, in addition to the fact that they were an undue tax upon the resources of the institution, they were, the committee felt, cases which, for various reasons, should not be received at the central general hospital, situated, as it was, in the heart of a crowded city. In January of the present year designs were called for a new hospital building, and 24 had been sent in. It was the intention of the committee to deal with these designs at an early date, and it hoped to have generous support from the Government and from the Victorian public in its proposed effort to complete some part of the new hospital during the present financial year. Various changes in the honorary medical staff were notified, and it was stated that in recognition of the donations made to the hospital for many years past by the trustees of the late Mr. T. J. Sumner, the out-patient theatre had been called the "Sumner theatre." The chairman, in moving the adoption of the report, said he regretted the Government grant remained at the reduced figure of £10,000. For many years they had a grant of £15,000, and afterwards it was £14,000. He specially drew attention to the paragraph in the report dealing with the accommodation of consumptive patients. Last year the matter was alluded to in the report of the superintendent, but it was then thought that the establishment of the Kronheimer wing of the Austin Hospital would relieve the Melbourne institution of a class of patients which were most undesirable in a city hospital. The Board of Health took notice of a large number of minor matters affecting hospitals, and he would be glad if it would take this question in hand and bring it to a satisfactory determination. By so doing the board would help the hospital very materially and do a great deal of good to the general community.

Women's Hospital, Melbourne.—A report submitted at the meeting of the Women's Hospital committee last month showed that arrangements for the establishment of an external midwifery department in connection with the hospital had been nearly completed. In conference with the advisory committee Dr. R. Adam had intimated that opposition to the proposal was experienced from some medical men outside the institution, but it had been practically overcome. There seemed to be a fear that the department would lead to imposition, but the objectors had been assured that rules would be adopted to prevent relief being extended to any but the necessitous and deserving poor. The establishment of an external department means that where considered desirable, applicants for aid will be treated and nursed in their own homes. The report was adopted. Gratification was expressed at the fact that the maintenance account was in a satisfactory condition. It was stated that a sum of £200 would shortly be available from the estate of the late Mr. John Robertson, of Lonsdale-street. The donations for the week amounted to £38, including £8 9s from patients.

Austin Hospital, Melbourne.—The annual report of the admission committee of the Austin Hospital, Melbourne, states that 307 applications were made for admission to the hospital during the year, and the great majority of these were afflicted with consumption. Of the consumptives, 43 were admitted, 39 are still waiting relief, and 94 died or disappeared before accommodation could be provided for them. As the great majority of those who died were in indigent circumstances, it is more than likely that their deaths were accelerated by neglect and the absence of proper nourishment. The habitations of many poor people are insanitary and unwholesome, and the inmates of the dwellings are liable to contract any disease of which the germs are freely distributed. It is, therefore, absolutely necessary that every reasonable precaution be taken in order to eradicate the evil. If advanced consumptives are prevented from coming into contact with healthy members of the community the disease would in a few years cease to exist, and in order to secure the segregation of such invalids, it is necessary that there should be some institution specially provided and designed for their reception. The Austin Hospital provides accommodation for 102 consumptives, but, owing to the interdiction of the Kronheimer wing by the Government, only 42 cases can be taken in at one time.

St. Vincent's Hospital, Melbourne.—The Victorian Government have offered £1500 to any hospital for building purposes to which £7500 has been subscribed before the end of September, 1905. The St. Vincent's Hospital building fund has received up to date the sum of £3880 towards the amount required. The sum of £360 has been received from the members of St. Vincent's Auxiliary League, and the promises of £10 which were received some time ago are now being steadily fulfilled, so that there is every hope that St. Vincent's will claim Mr. Bent's offer.

Hobart Hospital.—At the last monthly meeting of the board of management of the General Hospital, Hobart, the finance committee reported that the total expenditure for the 12 months ended June 30 amounts to £7484 15s 2d, as compared with £7594 5s 7d during 1903. The fees recovered during the year amount to £1217 4s, and at June 30th £213 11s remained on the books for collection. During the year 1416 cases have been treated in the hospital, the daily average number of occupied beds being 85, and the average stay in hospital was 20¼ days. In the out-patients' department 4831 attendances have been recorded. In accordance with the resolution of the board of management, the joint medical and building committee fully considered the question of erecting open-air shelters within the hospital grounds for the treatment of certain cases of phthisis. At a meeting held on the 23rd ult., it was decided to erect two shelters, each to contain two beds, and that application be made to the Hon. the Chief Secretary, requesting that the Government architect be asked to furnish plans and specifications of the proposed shelters. On June 28th a reply was received from the Government, acknowledging the receipt of the letter embodying the recommendations of the joint committee, and stating that the matter will receive attention. A letter was read from the trustees of the late George Adams, forwarding £10 10s to the funds of the hospital, being the amount which the trustees had under the power for that purpose conferred upon them by the will allotted to the hospital out of the unclaimed prize-money for the year 1897. The secretary was instructed to write to the trustees thanking them for the very acceptable gift.

Royal Alexandra Hospital for Children, Sydney.—At the monthly meeting of the board of management, Dr. Clubbe being in the chair, the house committee's report showed that there had been admitted to the general hospital during the month of June 43 patients; diphtheria wards, 12; discharged from the general hospital, 42; from the diphtheria wards, 12; deaths in the general hospital, 3, and in the diphtheria wards 2; remaining in the general hospital, 48, and in the diphtheria wards 2; that there had been 2582 attendances on out-patients, 580 of them being new cases; that the receipts from patients' payments amounted to £41 19s. The expenditure was £380 18s. The Camden Convalescent Cottage report showed that 10 patients had been admitted, 9 discharged, and that there were 14 remaining at the cottage. The hon. treasurer's report showed a debit balance of £656 11s 6d, but it was stated that a sum of about £700 was due from the Government as pound for pound subsidy. Mr. Pratt stated in his report that the accounts of the *matinée* given by Mr. J. C. Williamson and his company on June 10, which had been duly audited, showed a net profit of £209 14s 9d. The movement originated by the Lady Mayoress of Sydney to raise money for the building fund is making substantial progress.

A meeting of subscribers to the Tamworth Hospital has given expression to the opinion, by 11 votes to 6, that the hospital medical staff should remain as at present, namely, two paid doctors. There is, however, a proposal to alter the constitution of the staff by adding the unattached doctors as honorary members.

The additions to the Orange Hospital have been completed. They have cost nearly £4000.

The Hospitals of Tasmania.

REPORT OF THE ROYAL COMMISSION.

We are indebted to Dr. J. S. C. Elkington, Chief Health Officer for Tasmania, for a copy of the report of the Royal Commission on the General Hospitals (Hobart and Launceston) and Hospital for the Insane, New Norfolk, Tasmania, from which we make the following abstracts:—

The Commissioners have devoted anxious consideration to the existing method of subsidising the General Hospitals of Hobart and Launceston with large sums of public money by Parliamentary vote, and have compared this system of maintenance with those practised in other States, colonies, and countries. They consider this system unsound, in that it is not accompanied by adequate supervision or control; that it is unwise, as it to a large extent prevents the development of healthy and vigorous public interest in the institution, with the consequent exercise of philanthropy, either spontaneously or in response to organised appeals, and that it is even unjust, since it imposes upon the whole State a burden of taxation for the benefit of limited areas. The distribution of in-patients admitted to each of the hospitals for the year, although the actual majority came from the country, shows that by far the greater proportion from any one district came from the immediate vicinity. It appears anomalous, for example, that the miners of the West Coast should be taxed to support hospitals at Hobart and Launceston to which they supply only occasional patients as compared to the cities where the hospitals are situated, and at the same time should contribute largely towards their local institutions, which receive a much smaller proportionate subsidy on a strictly pound for pound basis. The absence of any organised appeals to the public on the lines of the "Hospital Sunday" and "Hospital Saturday," which has secured such excellent results elsewhere, has been made clear by the statements of the chairmen of the boards, the chairman of the finance committee, Hobart, and the secretaries. The Commissioners regard with grave apprehension the dangers to which the inmates and staff are subjected from the outbreak of fire, more especially at the Launceston Hospital.

The following recommendations are made in regard to the Hobart and Launceston Hospitals:—That the boards of management be reconstituted as follows:—(*a*) Three representatives to be appointed by the State—one to be the stipendiary magistrate of the district in which the hospital is situated; one to be an architect or engineer, in the active practise of his profession if possible; and one to be a private individual possessing special financial knowledge. One of these to be *ex officio* chairman. (*b*) Three representatives to be appointed by the contributing local bodies from amongst their members. (*c*) Two representatives (themselves annual or life subscribers), to be elected by annual subscribers of not less than two years' standing, and life subscribers. (*d*) The honorary medical and surgical staff, *ex officio*. By this board there should be elected, on its inception, and subsequently as occasion arises: (*e*) Three lady representatives. The chairman of the visiting committee should be the architect or engineer amongst the Government representatives, and one of the lady members should, *ex officio*, be a member. Three other members, and the lady member alluded to, should be elected by the board. The chairman of the finance committee should be the Government representative appointed as possessing special financial knowledge; two other members should be elected by the board. The board and its committees should take no part in the executive control of the institution, but should confine itself wholly to administration. The medical superintendent should be directly responsible to the board for the entire working of the institution, the reports of the visiting and finance committees forming an independent check. The reduction from its present figure of £4500 of the State grant for maintenance, to a fixed subsidy of £2500 annually to each of the two institutions, with a further pound for pound grant annually on patients' fees and voluntary contributions or donations, and ten shillings in the pound on legacies up to £500; the total amount of such additional annual subsidy not to exceed £1500 in all. The formation of hospital districts, each including a number of local bodies; one district to cover the natural supply area of each general hospital. The empowerment and requirement of the local bodies within such district to contribute for hospital purposes a sum not exceeding one per cent. of their annual value for rating purposes. Each local body to be responsible for all patients admitted from its area to the maximum above named; any surplus expenditure above this amount, due by any one local body, to be evenly divided over the whole district in proportion to the annual rateable value of each local body. Such contributions to be applied solely to the ordinary maintenance and upkeep of the hospital, including repairs, but excluding new buildings, except in so far as is hereafter alluded to. Where patients contribute a portion of the cost of their maintenance, the difference only between such payment and the average cost per patient on an annual basis to be payable by the local body liable. Patients coming for treatment from another district to be paid for by that district. The finance committee to assess each local body concerned annually. The adoption of a uniform ticket of admission for in-patients and out-patients. The institution being, moreover, required, as a condition of grant, to thoroughly examine the declared particulars of each patient, to fix the amount (if any) each patient can pay, and in cases of imposition to prosecute offenders. Together with this, the appointment of an inquiry officer at Launceston, and the reorganisation of the Hobart appointment on the lines already suggested. The adoption of a uniform system of accounts. The placing of responsibility upon the board for providing adequate means for the prevention and extinction of fire and for the escape of patients and staff should fire break out. The general repair and upkeep of the buildings and equipment should also be a duty of the board. Periodical surveys of the hospital buildings by the inspector of public buildings, reports upon their condition and state of repair being submitted to the Minister. The making of provision elsewhere for the poor or destitute chronic sick, and their more systematic transference thereto upon the relief of acute symptoms. The unification, as far as possible, of the staffing and the management of the Hobart and Launceston General Hospitals. Certain differences exist, notably in the inclusion in the latter institution of a reception-house for lunatics, and an infectious diseases hospital, and the presence of a laundry. The general organisation of the Hobart Hospital might be remodelled with advantage on the lines of the Launceston institution. The appointment of a medical superintendent for Hobart is essential, and the suggested duties and emoluments of such an officer are outlined. The provision at the Hobart Hospital of a suitably equipped laundry and central kitchen, together with the refitting on modern and more economic lines of the kitchen at Launceston. The remodelling of the sanitary and bath accommodation of the male block at Hobart. The provision for fire extinction at the Hobart Hospital. The provision of suitable plants at Hobart and Launceston for steam sterilisation of all infected articles capable of undergoing such a process, and for the periodical treatment therein of bedding, hospital clothing, etc. The introduction of a Hospital Constitution and Management Bill, amending and consolidating the present scattered and differing statutes; providing a check against the abuse of State-aided hospitals, allowing for their more complete control by regulations, and empowering and requiring contributions from local bodies on the lines alluded to. Provision should also be made for conditions to be imposed by the Minister on the grants made from State funds. The collection of fees from out-patients requires attention in any such statute, as does the collection of fees in connection with lunatics at hospitals. The formation of a treasury fund for covering the outlay on the recommended structural alterations and additions to the two establishments, the money so allotted being lent to the boards for repayment at 4 per cent., with 1 per cent. sinking fund added annually, and the contributing bodies being made security for its payments.

Hospital for the Insane, New Norfolk.—The Commissioners having made an exhaustive examination of the Hospital for the Insane, New Norfolk, report that the condition of the wards and of the establishment generally, as to cleanliness, reflected great credit upon the medical superintendent, his assistant medical officer, and the staff generally. They do not endorse the application of the chairman of the official visitors for a monetary allowance of £50 per annum, and are of opinion that the emoluments pertaining to the position should be limited to recoupment of travelling expenses alone. The duties performed by this gentleman, in practically acting as the official head of the hospital, certainly appears to have been somewhat burdensome. Their re-arrangement, in the manner recommended, will, however, limit the work of the official visitors to inspection alone, and will remove the present necessity for the signing of many official documents and other tedious formalities at present required of the chairman. The provisions for fire extinguishing are good, and the results of a call made by the Commissioners were satisfactory. The newer portions of the building are, for the greater part, well constructed and sufficiently fireproof, but the older structures, and especially the male cells, situated near to the carpenter's shop, are liable to disaster in the event of a conflagration arising here. The baths should also be kept full at night, special care being taken to ensure the cutting off of access by patients; and stands of buckets kept constantly replenished in the corridors, in case of a failure in the regular supply. Systematic instruction should also be given to nurses as to the measures to be taken in case of fire, especially as regards organisation of method for removing refractory and incapable patients. They should, further, be instructed (with practical demonstrations) in the methods of using the fire alarm when installed, and of coupling-up and using the hoses.

The following recommendations are made:—1. Reorganisation of the duties of official visitors in order to render them an investigatory body without direct executive or administrative functions, but possessing the fullest powers of inquiry into all matters concerning the hospital. 2. Investment of the medical superintendent with fuller powers than at present, including adequate disciplinary control, absolute discharge of patients, etc. The medical superintendent to be directly responsible to the Minister. 3. Collection of fees for paying patients by a master in lunacy, with general powers for dealing with all legal questions arising in connection with insane persons detained in State asylums. 4. Removal of non-professional clerical work from the medical superintendent. 5. Complete reorganisation of the clerical and stores work under a suitably qualified steward, assisted by a storekeeper, the former being directly responsible to the medical superintendent. 6. The provision of means for systematically training attendants and nurses in their duties, for granting a certificate to satisfactorily-trained candidates after examination, and for enabling certificated candidates to receive certain advantages of pay, and of eligibility for advancement. 7. Rearrangement and some increase of the attendant and nursing staff, in order to enable more satisfactory arrangements to be made regarding leave and hours of duty than are at present possible. Sufficient increase of pay to the nursing staff to induce nurses to remain after receiving training. 8. The replacement of outside rations and allowances by a compounded monetary allowance in lieu thereof, and the bringing into scale of all issues of stores. 9. Revision and more complete standardisation of the dietary scales. 10. The provision of adequate general and professional libraries. 11. The performance by an outside medical practitioner not connected with the asylum of all post-mortem examinations ordered by a coroner. Empowerment of the medical superintendent to require a post-mortem examination on any patient dying in the asylum. 12. Boarding-out, or allowing out on trial with friends, suitable cases selected by the medical superintendent. 13. The requirement of a bond of £50 from a responsible party in all cases where patients are released on the order of friends, in order to ensure due care and attention. 14. The erection at the earliest possible date of a suitable criminal division, and of other structures required for the proper classification of patients. Certain of the existing buildings are totally unfit for patients, and the extraordinary amount of mechanical restraint, rendered necessary by inadequate accommodation, forms a serious blot upon the system; one which should not be permitted to continue. 15. The erection and proper equipment of a central kitchen. The provision of duplicate electric-lighting machinery; of a foul linen plant; of better means of power and heat production; of a wood-cutting plant; and of other apparatus and buildings required for the more profitable utilisation of hospital labour. The extension and reorganisation of the working of the farm, so as to render it a more efficient factor in the economic maintenance of the institution. 16. Provision for compensation of the hospital fire brigade, when their services are placed at the disposal of private persons. The institution of an electric alarm system; the amplification of existing facilities for extinction of fire; and more systematic training of attendants and nurses in the duties expected from them in case of fire. 17. The introduction of the necessary legislation for ensuring adequate control by the medical superintendent, and for other matters dealt with in this report where at variance with existing law.

The Doyen Serum in Cancer.—According to a cablegram in the *Sydney Morning Herald* the Parisian Surgical Congress Committee has informed the Surgical Society that five months' investigation showed that Dr. Doyen's serum does not cure cancer.

A Metropolitan Hospital Bill for Brisbane.

We learn from the *Brisbane Courier* that a bill to make better provision for the maintenance, management, and regulation of public hospitals in the metropolitan area was introduced in the Queensland Legislative Assembly by the Home Secretary and read a first time on July 31st. It comprises 33 clauses and a lengthy schedule.

Clause 3 defines the Metropolitan Hospitals District. It is provided that the Act shall apply to the Brisbane General Hospital, Wattlebrae, and Colmslie Hospital for Infectious Diseases, and any other hospital now or hereafter established, which the Governor-in-Council may by proclamation declare to be subject to the Act. Existing Hospitals Acts are not to apply to these.

A Metropolitan Hospitals Board is provided for, to consist of 15 persons, seven to be appointed by the Governor-in-Council, three to be elected by the city of Brisbane, and one by the city of South Brisbane and the others by the Town Councils.

The appointments of Government members are for three years, and the elections of the other members are to take place in March of every alternate year. Usual provisions are made for filling vacancies, and it is provided that the board be constituted a body corporate. A chairman is to be elected by the board at its first meeting after each election, and shall be the executive officer of the board. Every existing committee or board is dissolved, and relieved of liabilities, which devolve upon the new board, in whom is vested all the property and interest of the hospitals brought under the measure. The new board is charged with the superintendence, management, and control of every metropolitan hospital, and with the consent of the Governor-in-Council it may establish, close or amalgamate such hospitals. The board is also charged with the execution, on behalf of the local authortities concerned, of provisions of the Health Act and regulations.

Provision is made for revenue being raised by the board and paid to a "Hospitals Fund," to be applied to carrying out the provisions of the Act, and the board is to take all necessary steps for providing the funds. Power is given to the Governor-in-Council to suspend, amend, or rescind any resolution of the board, or to prohibit or limit expenditure which he thinks unnecessary, extravagant, or burdensome to the local authorities. The board shall each year frame an estimate of probable expenditure, and the income other than from the Treasurer and local authorities. "The sum constituting the difference between these two total amounts shall be allocated by the board for contribution. One half of such sum shall be contributed by the Treasurer out of moneys to be appropriated from time to time by Parliament for the purpose, and the other half of such sum shall be contributed in quarterly instalments by the local authorities in the proportion hereinafter mentioned." To ascertain the amount to be contributed by each local authority, it is provided that each clerk shall transmit to the secretary of the board a return of the total value of rateable land in the district, and the secretary shall by means of such return estimate the amount which each local authority would be required to contribute if the basis of contribution were in proportion to the value of the rateable land in each area. By means of a return from the Registrar-General, the secretary shall estimate the amount which each local authority would be required to contribute if the basis of contribution were in proportion to the population of each such area. The secretary has also, before the 7th July in each year, to prepare a return showing the cost of maintaining and relieving from the area of each local authority during the year, taking into consideration the number of such patients and the number of days under treatment: and he shall by means of such return estimate the amount which each local authority would be required to contribute if the basis of contribution were in proportion to such cost with reference to each area. The respective amounts of contribution, as ascertained in accordance with the three bases herein mentioned with reference to each local authority, shall be added together, and the amount to be respectively contributed by each local authority shall be one-third of each total sum. The basis of contribution for 1906 is to be on the returns of the previous year, and precepts are to be issued upon the local authorities for the amounts of the contributions, and the sums may be recovered by law.

The local authority may pay the amount from its "local fund," or it may be raised by means of a hospital rate. If from any visitation of disease the board's estimate of expenditure proves inadequate, power is given it to allocate further contributions. Every patient shall be liable to contribute a reasonable sum, according to his means, and the board is empowered to recover from such patient, the relatives being also liable to contribute. Power is given the board to make by-laws, which may, however, be repealed by the Governor-in-Council, who may also make regulations to cover any omissions in the Act. Penalties not exceeding £20 or six months' imprisonment are provided for offences under the Act, penalties to go to the hospital fund, except where otherwise provided by the Act. The schedule sets out rules for the election of members, the proceedings of the board, etc., the annual audit of accounts, and publication in the *Gazette* and newspapers of the receipts and expenditure.

Medico-Legal and Medico-Ethical.

Poisoning by Arsenic and Strychnine.—

At the recent sittings of the Central Criminal Court in Sydney a woman named Jane Davis was charged with having administered arsenic and strychnine with the view of causing the death of a kanaka, at Maclean, Clarence River, on November 25th last. She was convicted and sentenced to death. Subsequent to the trial it was ascertained that the victim of the poisoning, and another kanaka who was a witness in the case, were suffering from leprosy, and in view of these facts the Attorney-General ordered a further inquiry, and his Honor Judge Rogers was asked to inquire whether the symptoms of arsenical poisoning presented by the victim might not have been due to leprosy. Evidence was taken from several medical men, including Dr. Ashburton Thompson (President of the Board of Health), Dr. Tidswell (Principal Medical Officer to the Government) and others, but the result of this inquiry showed that the kanaka had undoubtedly suffered from arsenical poisoning in addition to leprosy. The discovery of leprosy in the two kanakas led to a conference between the Chief Secretary (Mr. Hogue) and Dr. Ashburton Thompson; and to allay public anxiety it was decided that one of the Government officials who had had considerable experience in leprosy should visit the Clarence River district and examine all the kanakas, with a view of ascertaining the possible existence of other cases of leprosy among them. This examination has been completed, and it is satisfactory to learn that no further case of this disease has been discovered.

A Lodge Doctor's Fees.—Dr. H. L. A. Shorter, of Petersham, has furnished us with the following account of the case in which he successfully sued one of his lodge members for an operation fee:—"In May, 1902, a member of the Prince Victor Lodge No. 63, Protestant Alliance, brought his son to my consulting room for treatment. I found the lad to be suffering from the presence of a post-nasal adenoid, and advised an operation for its removal. His parent agreed to have the operation performed at his house, promised to pay 21s for the administration of an anæsthetic by another medical man, and 21s for the operation to be performed by me. He was charged only 21s for the latter, as he represented himself as being 'only a poor working man,' whereas I afterwards found him to be possessed of considerable property. I operated a few days later. The member paid the anæsthetic fee of 21s, promising to pay mine at the end of that month. Not receiving any payment, two months later I sent him an account, to which he replied by saying that he had no intention of paying, since on considering the matter he was of opinion that operations should be done as part of ordinary lodge work. I reported the matter to his lodge, who replied that as the matter was a private arrangement between me and the member, it was 'outside their jurisdiction.' Finding that this member was trying to get other members to do the same thing in regard to operations on their families, and a particular case having arisen in February of this year as the result of this member's action, I brought the matter up at the last meeting of the Western Suburbs Medical Association. The Association advised me to test the case in court, and promised to recoup me to the extent of £5 for any out-of-pocket expenses I might be put to. I placed the matter in the hands of my solicitor, and the case came on on August 1st last. The Judge (Judge Backhouse) decided in my favour, on the grounds that the member had promised to pay; (2) that the agreement was so loosely worded that it might mean anything; (3) that one of the trustees at the time of my signing the agreement in reply to a question put by me stated that the agreement was not intended to cover operations; and (4) that it had always been the practice in lodges in the district to charge for operations. The Judge also commented severely on the way the agreement was drawn up, advising that in future all such should be prepared by a solicitor. In reply to a remark by the solicitor for the defendant that 'the decision would be very far-reaching,' the Judge stated that such was not the case, since 'every such case would be decided on the circumstances surrounding each such case.'"

Medical Advertising.—A well-known medical man, of Elizabeth-street, Sydney, who has been visiting the Northern districts and advertising freely his qualifications as a specialist in diseases of women in the local newspapers, is no longer a member of the British Medical Association.

MEDICAL NOTES.

Australasian Trained Nurses' Association.—At the annual meeting of the Australasian Trained Nurses' Association held last month in Sydney, the report which was presented stated that during the year there had been a steady increase in membership in all the States, 120 applications being accepted for admission to the central register, making the total number 759, as against 689 last year. The medical membership had increased from 75 to 91. The disagreement which had resulted in the withdrawal of some of the members of the midwifery auxiliary branch had been settled. The total membership of the association in Australasia was said to be 1389, made up of 1015 general, 249 midwifery, and 125 medical (all branches). Reference was made to the progress made throughout Australasia, and to the alteration of the rules. It was stated that the Royal Victorian T.N A. had raised objections to certain features in the training in vogue under the rules of the A.T.N.A., notably the absence of central examinations, the registration of midwives without a certificate of general training, and the recognition of private hospitals as training schools. The new council could, it was said, be relied upon to do everything possible to restore the former satisfactory relations between the two associations, while at the same time resolutely refusing to consent to anything that would in any way tend to lower the standard already attained. The balance-sheet showed the association to be in credit by £690 17s 11d. The income for the year ending June 30th (including £248 brought forward) amounted to £792. Statements were presented of the benevolent fund and the journal accounts, each showing credit balances. It was decided that on and after June 1st, 1906, no nurse trained at a training school, general or special, under the control of the A.T.N.A., should be admitted to membership of the A.T.N.A. until she had passed the final examination of the association; and that an entrance fee of £1 1s be charged, such fee to entitle the successful candidate to full membership for the first year. Other resolutions provided for candidates to produce proof of having attained to the standard of general education laid down by the council, and that after September, 1905, the journal of the association should be published monthly.

Charitable Donations and Bequests.——Nearly £1000 has been paid into the building fund of the Royal Alexandra Hospital for Children. Out of this sum the Woollahra Ladies' Auxiliary branch handed in £403, the proceeds of the fancy dress ball held in the Town Hall on July 3rd amounting to £275 after paying all expenses. The artists of Sydney, who organised the ball in conjunction with the Woollahra Ladies' Auxiliary, contributed about £90 towards the total sum realised by the ball.

The Sydney Pathological Club.—The second meeting of this club for this year was held in the Micro-Biological Laboratory at the Department of Public Health on Thursday, August 3rd, at 8 p.m. The chair was taken by Dr. G. E. Rennie. Dr. Flashman gave an account of and demonstrated the brain of a microcephalic idiot. Dr. Greig Smith discussed the function of agglutination. Professor Welsh described a new parasite which was found in a large swelling in the muscle of the thigh of a man. Professor Welsh also exhibited a specimen of filaria sanguinis honimis, found in the blood taken from the ear of a boy from Queensland. The blood showed large numbers of coarsely granular eosinophile leucocytes. The total degree of leucocytosis was not great.

Electric Light and Power at the Sydney University.—Mr. E. Kilburn Scott, M.I.E.E., of the P. N. Russell Electrical Engineering Laboratory, in connection with the Sydney University, read a paper before the University Engineering Society recently on "Some Considerations Regarding the Establishment of a Central Station for the Supply of Electric Light and Power to the various Buildings in the University Area." Mr. Kilburn Scott suggests that the proposed station should be built near the site of the new P. N.

Russell School of Engineering. It will have three objects, the first being to supply electric light to all the University buildings, the Prince Alfred Hospital, and the various colleges, St. Paul's, St. Andrew's, etc. The second object is to supply power to the new engineering school laboratories and workshops, and also to the machinery in the physics laboratory, the chemical, geological, and mining departments. It will also give power to the hospital for working the Röntgen ray apparatus, as well as the Finsen light, which is being fitted in the new pavilions now approaching completion. The third object of the station was to afford the mechanical and electrical engineering students some training on a commercial scale before they leave the University. The station would also give improved lighting for the Victoria Park and the precincts of the University.

Hospital Saturday Fund of New South Wales.—The eleventh annual meeting of the Hospital Saturday Fund of New South Wales was held on July 30th. The report stated that the receipts for the year amouted to £4832 5s 6d, or only £46 2s 10d less than last year, and the total expenditure amounted to £432 18s 5d, or £33 16s 4d less than last year. Owing to the unflagging energy of the ladies, the outdoor collection was only £80 less than that of the record year. The household collections showed an increase of £54 19s. The industrial collections showed an increase of £18 19s. As this branch of the organisation did not show that improvement which the board expected, further special and energetic measures had been decided upon for the coming year, which would enable the organiser to devote all his spare time to the work of establishing regular industrial collections in the various places of business and workshops where large numbers were employed, as the board believed the wage-earning population only wanted to be reached and to have the objects of the association properly explained to them to ensure their appreciation and support. This year the board received 30 applications from institutions to participate in the distribution, and resolved to include three institutions which had not hitherto participated in the distribution, but which now came within the scope of those entitled to participate, viz.:—The Royal Hospital for Women, the Dental Hospital of Sydney, and the Sacred Heart Hospice for the Dying, making in all 26 institutions benefited. The sum of £4400 was voted for distribution, being an equal amount to that distributed last year. The chairman then handed cheques to the representatives of the various institutions as follows:—General Hospitals.—Sydney Hospital, £875; Royal Prince Alfred Hospital, £700; St. Vincent's Hospital, £450; Royal Alexandra Hospital for Children, £340. Suburban: Balmain Hospital, £130; Royal North Shore Hospital, £190; Parramatta Hospital, £145; Western Suburbs Hospital, £115; St. Joseph's Hospital, £85; St. George Hospital, £80; Manly Hospital, £67; Marrickville Hospital, £67; Sydney Homœopathic Hospital, £46. Special Hospitals.—Carrington Convalescent Hospital, £175; Queen Victoria Homes for Consumptives, £190; Lewisham Hospital for Women and Children, £190; St. Margaret's Maternity Hospital, £90; the Women's Hospital, £110; Royal Hospital for Women, £75; Sacred Heart Hospice, £50. Auxiliary Medical Charities.—Civil Ambulance and Transport Brigade, £100; St. John Ambulance Association, £10; Surgical Appliance Aid Society, £25; Sydney Medical Mission, £40; District Nursing Association, £25; Dental Hospital of Sydney, £30. Total, £4400.

PERSONAL ITEMS.

Dr. Mailer, who is severing his connection with the Wendouree Lunatic Asylum, Victoria, with the object of establishing a private asylum at Camberwell, under the new Lunacy Act, was entertained at a farewell social at the asylum. The whole of the staff assembled, and altogether about 200 were present. On behalf of the subscribers Dr. Steel presented Dr. Mailer with a set of four silver entrée dishes.

Dr. S. T. Knaggs, formerly of Sydney, and now medical officer on board the large steamer employed in conveying coolies from China to South Africa, has just completed his second trip. 2118 coolies were landed at Durban in excellent health. Dr. Knaggs speaks very hopefully of the prospects of employing coolies in the Johannesburg gold mines. The employment of Chinese coolies is increasing the work required to be done by white labour.

Dr. Richard Perkins, medical superintendent at the Newcastle Hospital, has resigned, to enter upon private practice in Sydney. He is succeeded by Dr. James Leslie, who was temporarily practising at Lambton, N.S.W.

Dr. Douglas, resident surgeon at the Frankton Hospital, Dunedin, is away on a holiday visit to the north during the winter. Dr. Gow is acting as his *locum tenens.*

Dr. James Watt has joined Dr. R. Martin in practice, residing with him in the Octagon, Dunedin.

Dr. Lindo has left Dunedin on a winter excursion to the South Sea Islands.

Dr. J. F. Duncan, of Christchurch, has obtained the qualification of F.R.C.S., Edinburgh.

Dr. Purchas, on his departure from Dargaville, New Zealand, was presented by the members of the Dargaville Club with a fine gold watchchain.

Dr. Griffiths is leaving Gundagai, N.S.W., having disposed of his practice to Dr. Mawson, of Sydney.

Surgeon-General Williams has returned to Melbourne, after having inspected the new depôt of the Army Medical Corps at the Old Exhibition Building, Adelaide. He will return to Adelaide about three weeks hence to attend the Australasian Medical Congress.

Dr. Suckling, Adelaide, is proceeding to England for further study on September 1st.

The retirement of Dr. McCreery from the position of Inspector of Lunatic Asylums, Victoria, after 37 years' active duty, has been made the occasion of a number of presentations. A réunion was held at the Kew Asylum, when the past and present members of the staff of the Lunacy Department presented him with a desk and furniture for his consulting-rooms, and the staff of the Idiot Asylum gave him a revolving bookcase and a silver inkstand. Dr. Jones, Inspector-General of the Insane, presided, and eulogistic speeches were made by Dr. Shields, late Government Medical Officer; Dr. Mullen, acting medical superintendent, of Kew Asylum; Dr. Godfrey, assistant Government medical officer; and Mr. Vallance, secretary of the asylum. Dr. McCreery suitably responded.

Dr. A. MacCormick, of Sydney, has been made an Honorary Fellow of the Royal College of Surgeons of Edinburgh in connection with the Fourth Centenary celebrations.

MILITARY INTELLIGENCE.

NEW ZEALAND

Falconer, Alexander Robertson (New Zealand Militia), to be Surgeon-Captain New Zealand Medical Corps.

Mackay, Frederick William Read, to be Surgeon-Captain New Zealand Medical Corps.

Young, David Hastings, to be Surgeon-Captain New Zealand Medical Corps.

SOUTH AUSTRALIA.

Corbin, John, M.R.C.S. (Eng.), L.R.C.P. (Lond.), to be Lieutenant Army Medical Corps (Militia establishment).

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Hosking, John Edward Francis, M.R.C.S., L.R.C.P., to be Government Medical Officer and Vaccinator at Deniliquin, *vice* Dr. E. A. Graham, resigned.

Lawes, C. H. E., M.B., Ch.M. (Syd.), to be Honorary Medical Officer, Marrickville Cottage Hospital.

Paul, George Frederick, L.R.C.P., M.R.C.S., M.D., to be Government Medical Officer and Vaccinator at Cobar, *vice* Dr. Wm. C. Robinson, resigned.

Perkins, Richard, M.B., Ch.M. (Syd.), to be Honorary Medical Officer, Marrickville Cottage Hospital.

VICTORIA.

To be Officers of Health.

Grimwade, Alfred Sheppard, L.R.C.P., for the Shire of Meredith, *vice* William Amherst Henry Barrett, L.R.C.P., resigned.

Haydon, Gerald Edgar Tom, L.S.A., for Portland Shire, East Riding, *vice* Albert George Meares, L.R.C.P., resigned.

Mackenzie, John Hugh, F.R.C.S , to be Acting Officer of Health for Flinders and Kangerong Shire, West Riding.

Pern, Horace, M.R.C.S., to be a Public Vaccinator for the South-Eastern District, *vice* William Charles Crawford Muir, M.B., resigned.

Stang, Thomas, L.R.C.P., for the Shire of Creswick, *vice* Samuel Walter Pitcher, L.R.C.P., resigned.

SOUTH AUSTRALIA.

Chancellor, Charles Hurst, M.D., to be a Public Vaccinator at Gladstone.

WEST AUSTRALIA.

The following to be Medical Officers under the Workers Compensation Act.

Anderson, Thomas Lyndewolde, M.B., M.D.
Blanchard, David Francis, L.R.C.S., L.R.C.P., L.F.P. & S.
Haynes, Edward James Ambrose, M.R.C.S., L.R.C.P., F.R.C.S.
Miskin, Leonard John, M.R.C.S., L.R.C.P., M.B., B.S., F.R.C.S.
Webster, Alfred, M.B., Ch.M., M.D.
Williams, David Ernest, L. & L.M.R.C.P., L. & L.M.R.C.S.

NEW ZEALAND.

Horton, William Henry, M.B., to be Health Officer for the Port of Kaipara, *vice* Dr. Purchas, resigned.

The undermentioned persons to be Public Vaccinators for the districts set opposite their names respectively, namely :—

Boyd, Alexander Brooke, M.R.C.S. (Eng.), 1892, L.R.C.P. (Lond.) 1892, M.B. Ch.B. (Oxford) 1892, for the District of Ashburton.

Burnett, Leslie Burton, M.R.C.S. (Eng.), L.R.C.P. (Lond.), M.B., B.C. for the District of Oxford.

Horton, William Henry, M.B. for the District of Dargaville.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been duly registered as legally qualified medical practitioners in their respective States :—

NEW SOUTH WALES.

Clouston, Thomas Bennett, M.B. (Sydney), 1905.

Daish, Christian William, M.B., 1885, Ch.B., 1886, M.D., 1888 (Melb.)

Griffiths, John Neville, M.B. (Sydney), 1905.

Howley, Edward Joseph, Lic. R.C.P. (Edin,), 1896; L.R.C. (Edin.), 1896; L.F.P.S. (Glasg.), 1896.

Jones, Lincoln, M.B. (Sydney), 1905.

Kendall, Herbert Williams, M.B. (Sydney), 1905.

Knowles, Edward Herrick, L.R.C.P. (Edin.), 1905; L.R.C.S. (Edin.), 1905; L.F.P.S., (Glasg.), 1905.

Mansfield, William Charles, M.B. (Sydney), 1905.

Moni, Riccardo, M.D. (Parma), 1902.

WESTERN AUSTRALIA.

Fankhauser, Herbert William, M.B., B.S. (Melb.), 1904.

TASMANIA.

Campbell, Ranald Douglas, M.B., Ch.B. (Glasg.), 1898.

SOUTH AUSTRALIA.

Lindon, Ernest Hingston Lorraine, M.B., Ch.B. (Vic.); Manchester, 1894.

Magarey, Rupert Eric, M.B., B.S. (Adel.), 1904.

Rome, John Arthur Denzil, L.R.C.P. and S. (Edin.), 1903; L.F.P. and S. (Glasg.), 1903.

For Additional Registration.

Russell, Dr. H. H. E., F.R.C.P. (Edin.), 1903.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

BURKITT.—July 5th, the wife of Dr. Handcock Burkitt, Goulburn, N.S.W., of a daughter.

SANDES.—July 29th, at her residence, 92 City-road, Sydney, the wife of Dr. F. P. Sandes—a son.

MARRIAGES.

COOPER—ROGERS.—July 8th, by Rev. James Mursell, Claude T. Cooper, M.B., Ch.B., of Norwood, Adelaide, to Annie Maude, eldest daughter of Charles Rogers, Esq., of Parkside.

STUCKEY—CAMPBELL.—July 12th, at Kew Presbyterian Church, by Rev. Jno. Barnaby, assisted by Rev. Dr. Campbell and Rev. W. S. Rolland, Edward Joseph Stuckey, M.B., B.Sc., eldest son of Joseph J. Stuckey, of Adelaide, to Frances Helen (Nellie) Campbell, M.A., third daughter of Mr. J. M. Campbell, Kew, Victoria.

DEATHS.

GILDER.—December 31st, 1904, at No. 4 Lovelace Gardens, Surbiton, England, Maria Louisa Gilder, formerly of Campbell Lodge, Potts Point, Sydney, in her 91st year. Relict of the late Sherrington Gilder, Surgeon, formerly of H.M. Life Guards.

O'DOHERTY.—July 15th, at his residence, "Westholme," Heussler-terrace, Brisbane, Dr. Kevin Izod O'Doherty, in his 82nd year.

BOOKS RECEIVED.

Health and Disease in Relation to Marriage and the Married State. Edited by Geh. Medizinalrat, Prof. Dr. H. Senator, and Dr. Med. S. Kaminer. Authorised translation from the German by T. Tulberg, M.D. Vol. II. London, 129 Shaftesbury Av.: W. C. Rebman, Ltd., and New York. Price per volume, 15s net.

The Calendar, University of Calcutta, 1905. Calcutta: Thacker, Spink & Co.

A Handbook of Intestinal Surgery. By Leonard A. Bidwell, F.R.C.S. Demy 8vo.; 91 illustrations. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 6s net.

First Annual Report of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis: A brief account of the work of the first year and a reprint of the lectures delivered under the auspices of the Institute during the year, February 1, 1903, to February 1, 1904. Published by the Henty Phipps Institute, Pine-street, Philadelphia, 1905.

Cape of Good Hope University Calendar for the years 1905-1906. Capetown: J. C. Juta & Co.

The following works have been received from Messrs. W. B. Saunders & Co. Philadelphia, New York, and London; Mr. Jas. Little, Melbourne :—

1. Bacteriology and Surgical Technique for Nurses. By Emily M. A. Stoney. Second edition. Revised and enlarged by F. R. Griffith, M.D. Price, 6s 6d.
2. Dietetics for Nurses. By Julius Friedenwald, M.D., and John Ruhrah, M.D. Price, 6s 6d.
3. Saunders' Pocket Medical Formulary, with Appendix, by W. M. Powell, M.D. Seventh edition.

Carcinoma of the Rectum: Its Diagnosis and Treatment. By F. Swinford Edwards, F.R.C.S. London: Baillière, Tindall & Cox. Sydney: L. Bruck Demy 8vo. Price, 2s 6d net.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Hon. Sec. United Friendly Societies of Longreach, Q.; the Secretary Jundah District Hospital, via Longreach, Q.; Dr. A. S. Vallack, Bowral, N.S.W.; Dr. Monti, Broadwater; Dr. A. Stewart, Dalby, Q.; Hon. C. K. Mackellar, Sydney; Mr. Taylor, Hobart; Dr. David Wield, Brisbane.

AUSTRALASIAN MEDICAL GAZETTE.

MEDICAL SCIENCE AND SOCIAL PROBLEMS.

INAUGURAL ADDRESS.

Delivered at the Seventh Session of the Australasian Medical Congress at Adelaide, September 4th.

By Professor E. C. Stirling, C.M.G., M.A., M.D., F.R.C.S., F.R.S., Mount Lofty, S.A., President; Consulting Surgeon to the Adelaide Hospital; Professor of Physiology in the University of Adelaide.

THE first and very pleasant duty that falls to my lot as President of this Congress is to welcome, in the name of the medical profession of South Australia, our brethren from beyond our borders. If these, to some extent, still divide us politically, yet they form no barriers to the confraternisation of the members of the great army of medical science whose common object is the relief of suffering and abolition of disease. On our visitors do we, in this numerically small State, very greatly rely for the success of this meeting, which they have honoured by their presence. Though South Australia cannot indeed offer the scenic attractions and advantages of some of the other States, yet we, its citizens, like to think that we are not inferior to our neighbours in the warmth of the personal and social welcome we endeavour to extend to those who favour us with their too infrequent visits. On such an occasion as the present we may be relied upon to do our best to uphold what reputation for hospitality we may be thought to possess. May I, also, be the mouthpiece of the Congress in welcoming to this meeting all those who, though not belonging to the medical profession, yet have shown their interest in our proceedings and in the cause we represent by being present at a gathering which can scarcely have appealed to them as a recreationary attraction.

For my second duty the more difficult task presents itself of acknowledging in an adequate manner the compliment which has been conferred upon me by my election to a presidential chair that has been occupied by some of the most distinguished members of the profession in Australasia. I take this earliest opportunity of expressing my deep appreciation of the highest honour which lies in the power of my medical colleagues to bestow on one of their number. May I be found as worthy of their confidence as were those who have preceded me in the dignities of the position, in its duties, and, will not all my predecessors agree with me if I add, in its great anxieties and responsibilities! In this particular instance such an acknowledgment almost requires the inclusion of an apology, seeing that I, standing for some years outside the active practice of our profession, feel myself in some respects unqualified to address my experienced colleagues on many matters which lie nearest to their thoughts and work. Instruction or inspiration is not in my power to offer, but I console myself with the thought that there may, perhaps, be some propriety, or even advantage, in an arrangement whereby, every now and then, the opportunity of speaking, *ex cathedrâ*, should be given to those whose daily work consists in the consideration of the healing art, rather from the point of view of its underlying principles than from that of their adaptation to the requirements of actual practice.

This, your Excellency, ladies and gentlemen, is not an ordinary anniversary. I am glad to think by the faces I see before me that there are many here this evening who need no reminding that the institution of Intercolonial Medical Congresses, to give them their original name, was founded in South Australia, and that in Adelaide, in 1887, was held the first of the series of meetings that have continued uninterruptedly ever since, to the great benefit of ourselves and, I would fain think, of our calling. Now, after these eventful years, it returns to us for the second time. It is pleasant to see here—older by those eighteen years that have passed since he held office, but still in the prime of intellectual life—the first president of the first Congress (Dr. Verco). So, also, do we welcome those other past-presidents—Dr. Batchelor (president of the New Zealand Congress in 1896), Dr. John Thomson (president of the Queensland Congress in 1899), and Dr. Butler (president of the Tasmanian and last meeting in 1902)—who, in their respective States, have so worthily upheld the dignity of their country and their profession as to make their example difficult of emulation for their successors.

Still with us also is the real originator of the system of Congresses, Dr. Poulton, the secretary of the first meeting, as he is again of this. Neither has he lost his superabundant energies of eighteen years ago, which, to our great advantage, he now once more places at our disposal. And other distinguished participators of the first Congress I see, now become the Nestors of their profession, whom we gladly welcome to Adelaide for the second time.

How, then, shall I use this, an opportunity that comes once only in a man's lifetime, when he may address not only his assembled colleagues, but those, now, numerous members of the public to whom the widespread dissemination of scientific information has brought some knowledge of the romance of medicine and surgery ?

On occasions such as these, which serve as milestones in our lives and in our profession, it is a time-honoured custom for him who stands in the position which I have the honour to occupy to-night to review the progress of that particular branch of the profession with which his life's work has been identified. For one whose special interests were for more than a quarter of a century centred in the practice and principles of surgery, it is a tempting theme to exalt the horn of his calling by dwelling on its phenomenal advance during a period of which his own student days saw the beginning. But that has been an oft-told tale. It has been told by some of those who themselves were in the forefront of that triumphant march which has brought surgery to a pitch of success undreampt of even only half a century ago, and I need not repeat it.

The thaumaturgic proceedings of the operating-room have, indeed, always appealed to the popular imagination, and their results have become perfectly familiar to the intelligent public, either as the outcome of their own personal experiences or of the general spread of information, which is one of the characteristics of this age of publicity. Indeed, we know how each remarkable discovery is served up to us by the daily press on the morning following its announcement in the country of its origin.

The brilliancy of the results of Surgery not infrequently gives rise to disparaging comparisons between its progress and that of its less spectacular sister, the science of Medicine. But this disparagement is not wholly justified, for upon medicine—if it has been later than surgery to respond to the vivifying influences of the ancillary sciences—has now at last dawned an era of remarkable discovery pregnant with infinite possibilities for the future.

If surgery, as a craft, has, in the period in which we live, reached its golden age, it is possible to predict with great assurance that the present century will witness an equal, if not greater, advance on the part of medicine and its collateral branches. Indeed, as we can plainly see, that advance has now begun. Already the new therapeutics and the new science of preventive medicine have accomplished unexpected results, while offering boundless promise of achievements in the future.

About thirty years ago a distinguished English surgeon, a leader of the profession, gave it as his opinion that operative surgery had nearly, if not quite, reached its ultimate limits, and that certain regions of the body must perforce remain sacred from interference. But a great deal of water has flowed under the bridge since that time. Surgery has extended its scope far beyond what then appeared possible. Almost every groan of the body, including such important structures as the spleen, kidneys, lungs, liver and its appendages, the brain and spinal cord, are now successfully invaded by the surgeon's knife ; some of them are even entirely removed. The heart itself, the centre of the circulation, the slightest wound of which was not so long ago thought to be a fatal injury, is not exempt from interference, for there have been cases in which wounds of this organ have been successfully sewn up ; the feasibility has even been seriously considered of removing the obstruction to the circulation caused by the disease of its valves, which, as experimental physiology has shown, need not be regarded as impracticable. Long lengths, to be measured in feet, are with impunity cut out of the intestines and the continuity of the remainder restored. The stomach—that long-suffering organ, than which, as has been well said by a surgical cynic, no ass is more heavy laden—has, by its successful removal, been proved to be one of those useless superfluities of which not a few encumber our far from structurally perfect bodies. But it must be clear that in a finite body there must be some limit to our interference with organs on the adequate integrity of which the maintenance of life depends, and, if we have not yet quite reached those limitations, we can hardly doubt that, so far as actual removal of parts are concerned, there cannot in this respect be more worlds to conquer for the surgical Alexander. But even if this be the case, it is quite possible that surgery may be considerably extended on the constructive side so that we may be able to engraft, wholly or in part, complex organs as we do now in our transplantations of skin, bone, teeth and nerve; and of course there is still abundant room for improvements in our methods of operation and means of diagnosis.

May I venture in this connection to emphasise the importance of the too often neglected minutiæ of human anatomy? Now that surgical interference is pushed to the utmost limits of corporeal endurance, and almost every doctor considers himself capable of undertaking the most intricate operations, a refined knowledge of the smallest structural details of the human body is more than ever imperative. A due regard to those methods of operation which will ensure the least possible disturbance of parts and the least interference of normal functions may make all the difference between success and failure. But it is astonishing what the human body will endure.

Oh! the little more and how much it is,
And the little less, and what worlds away!

To whom shall this appeal with greater and more painful force than to those whose "little less" of knowledge or of skill, that might have been the "little more," has cost a human life.

But, after all, though I speak as a surgeon proud of my calling, our craft is, we must admit, in many of its proceedings a rough-and-ready sort of business, seeking to cut the gordian knot of disease rather than to unite it. Though the surgeon's knife will probably remain the *ultima ratio* of treatment of many of those injuries, deformities, and accidents to which our body is subject, partly on account of its own inherent imperfections, yet the discoveries of recent years render it permissible, and by no means visionary, to conceive of more rational and less violent therapeutics than the cutting off, or cutting out, of diseased organs or tissues. Indeed we are, even now, sometimes able to achieve this object by appropriate medication. Better still, the council of perfection would be to substitute prevention for our cures, for indeed there is no reason why the principles of the new science of preventive medicine should not equally be applicable to the surgical manifestations of disease.

THE OLD AND THE NEW MEDICINE.

After long epochs of slow and gradual growth, interrupted by dark ages of stagnation and superstition, both medicine and surgery have, in our own times, witnessed a remarkable and, relatively to past epochs, sudden expansion not only in their methods but in their underlying principles. Between the old and the new medicine there is a difference not merely of degrees but, in a great measure, of kind. What, then, we may ask, is the nature of the new influences which to so conspicuous a degree and with a potency exceeding that of past forces have served both as a stimulus to, and as the basis of, this sudden bound of progress? It may not be without some interest even to those outside the profession if we see what answer can be given to this question.

In ancient Greece, some time during the three centuries that preceded the Christian era, there arose amongst the physicians of the day a sect who, because they based their practice on experience alone to the exclusion of generalisation, reasoning, and analogy, termed themselves the Empirics, this word being the Anglicised form of the Greek word, meaning "one who is guided by experience." Another sect which flourished at the same time held experience to be valueless, and founded its doctrine exclusively upon reasoning and theory. These styled themselves Methodists, because they based their practice on a simple method, which we might call a "rule of thumb." To this sect, Galen, one of the greatest names in the early history of Medicine, belonged. A third sect availed themselves of both experience and reasoning, and were called the Dogmatists. Thus, even in these early days, there were schisms in the profession, and it is not surprising to learn that between them there was much and bitter controversy. Truly, our medical forefathers were very human.

The Empirics were controversially defeated, the sect died out, and the name Empiric (no doubt from its association with what was considered to be a defunct medical heresy) became a term of opprobrium which connoted quackery and, as applied to medicine, it still retains much of its sinister meaning.

But if the Empirics as a distinct medical sect died out, their basic doctrine of practice has survived. For long ages empiricism, using the term now in its literal and proper sense, has been one of the principal foundations of our medical practice. To the wise empiricism of our medical forefathers it has owed much, and we must admit that on a method of sound empiricism successful clinical treatment greatly rests, and must continue to rest, as indeed do most of the judgments of our daily lives. And here let me observe that, when we are apt to decry the manner of practice of our forefathers in the exaltation of our own methods, we should remember that it is questionable whether we, of the present day, are in all respects the equals in powers of assiduous and attentive observation of those great masters of the profession who so long ago preceded us. Without the multitudinous mechanical and other aids to diagnosis that we now possess and that to some extent are substitutes for natural wits, yet these men by their unaided powers of observation were often able to form an extraordinarily correct conception of the conditions and course of a disease. Their methods of treatment, indeed, purely empirical though they were, had in many cases a success that we have not been able greatly to improve upon. So, then, let us ever remember when we boast of our modern progress that our predecessors of old were not all ignorant nor always wrong in their methods and judgments, and that they have left us a rich legacy of recorded observations and clinical insight into disease that stand as an example of how much may be achieved by the unaided senses and by natural intelligence wisely applied. In many ways we might well ask for "the old paths where is the good way and walk therein."

But so long as our practice continued to be based only upon empirical methods, to the exclusion of reasoned processes which could enable us to recognise the underlying principles of which the observed facts were but scattered expressions, so long could medicine lay no legitimate claim to come within the category of the sciences. To the dignity of that position both medicine and surgery may now with some justice lay claim.

No longer does medical practice rest upon a chaos—an incoherent and unrelated aggregate of observed facts; no longer are we satisfied to know that such and such things are; but we have begun to ask the questions why and how they are; and when we are able to give even a partial answer to these questions our knowledge ceases to be empirical and becomes rational or scientific, and it is this just in so far as our answers are complete. In other words, medicine no longer contents itself with the knowledge, however accurately determined or however often recorded, that a disease has such-and-such a set of symptoms and that for some unexplained reason such-and-such a treatment is beneficial or detrimental, but it seeks to know what are the intimate causes of the perturbed action; why does it arise? why does it run the definite and constant course which has been observed to characterise it, or which distinguishes it from other kinds of perturbed action, and why should a particular kind of treatment be beneficial or the reverse?

When we are able to give answers to questions of this kind in a sufficient number of corelated cases, we are able to establish certain laws of disease that embody principles which guide us in our practice and give to medicine not only rational methods but extend infinitely its scope of action. A sound principle, or even a wrong hypothesis that has been rightly used, is worth any number of unrelated facts.

"*Felix qui potuit rerum cognoscere causas*" is just as true for the physician as for the philosopher; nay, twice happy is the former who can by his knowledge project his own felicity into the bodies and minds of those unto whom he ministers.

It is part of the aims of this address to bring before the notice of those to whom the facts may be unfamiliar some conspicuous illustrations of the wide influence that scientific principles have exerted upon medical science, to show that the phenomenal progress which the last half century has witnessed in various departments of our profession, has been due to the application of these principles, and that what has been achieved already in this direction is only an earnest of further and perhaps greater triumphs in the future. Here, then, is the difference between the old and the new medicine. The old based its methods, often, we must admit, with great practical success, upon empiricism and irrational hypotheses. The new, while retaining what is good of the old methods, seeks for the deeper and the truer insight into the how and the wherefore.

THE GERM THEORY.

In these days when everyone is familiar with the extensive rôle played by the microscopic organisms which collectively we call germs in the causation and manifestations of disease, it almost requires an apology for alluding to so well-known a story. But, as no more striking example can be mentioned of the far-reaching influence that may follow the application of a scientific conception, may I be pardoned if I make some brief allusion to the subject.

Nowadays everybody, even that much-talked-of individual, the "man in the street," is familiar with the fact that the great successes of surgery have been due to the co-operation of two factors—the use of anæsthetics and the adoption of aseptic and antiseptic procedures. Everybody knows that the object of these methods is, in the former case, to exclude from entrance into open wounds and susceptible surfaces those noxious vegetable organisms, generally found in the neighbourhood of man, which, when they do enter, are the causes of the local putrefactions and dangerous infections of the system commonly called blood poisonings. Antisepsis has the less favourable design of destroying the germs if, unfortunately, they should have already gained entrance. Not only have these aseptic methods permitted a vastly extended scope of surgical procedures, especially in the abdominal region, but they have also led to the practical abolition of those former scourges of surgical practice—hospital gangrene, pyæmia, septicæmia, erysipelas and other forms of blood poisoning, secondary hæmorrhage, and such like surgical calamities. And if puerperal fever and its allies still exist more frequently than they should do, it is principally because of the ignorance and want of surgical cleanliness of those obstetric anachronisms, the amateur Mrs. Gamps, who so confidently and so gleefully preside over the occasions which are liable to give rise to this class of complaints.

Now, for the purposes of my argument, the point is that all these great results resulting from the use of aseptic methods may, with much truth, be said to have sprung from a single bio-chemical discovery which, when it was made, had no connection whatever with medicine or surgery; indeed, it had reference to the very prosaic, and apparently remote, question of the making of beer. Nevertheless, it was undoubtedly Pasteur's classical investigations into the causes and conditions of fermentation which formed the immediate starting point and indeed the foundation of the aseptic methods of treatment with which the name of Lister will ever be honourably associated. For, applying the principles of Pasteur's discovery to surgery, Lister showed that just as fermentation is caused by the presence and action of certain definite, living vegetable organisms, so putrefaction in wounds, which is only a special variety of fermentation, is similarly caused by certain other minute organisms, and he proved also that the same kind of methods which would prevent the one process would prevent the other. Thus, the practical question, in respect to surgery, resolved itself, as we have said, virtually into methods for the exclusion from wounds of the organisms in question or for their destruction should they have gained entrance. No better example could be given of the world of difference that lies between the knowledge of a fact and the knowledge of its cause. Our forefathers were perfectly cognisant—indeed, they had disastrous experience—of the broad fact that putrefactive processes were apt to be set up in wounds, but, being ignorant of the cause, they were powerless to avert the fatal results.

The principles involved in Pasteur's discoveries in the field of fermentation were soon destined to receive a still wider application, for they led to the discovery that many of the diseases we term infectious were due to the entrance into, and operation within, the body of other organisms of a nature allied to those which cause the infection of wounds.

And if, still, there are some infectious complaints in which the specific germ has not yet, with certainty, been detected, we may be absolutely sure that for every such disease there exists an organic generator, and, further, there is even much to justify the view that other diseases than those now generally classed with the infectious group, such, for instance, as rheumatism, may be due to similar causation, and, need I say, that we are ever on the alert to discover a possible germ of cancer.

Nor is the knowledge gained on this generalisation limited in its application to man and his diseases; it has been extended to those pestilences which at times, in certain places and with such fatality, infest the domestic animals; it has been successfully applied to the improvement of economic and manufacturing processes; and, in the light of the same knowledge, we have learned the nature of those chemical changes taking place in the soil by which it becomes better fitted for the nutrition of vegetable crops. The formation of nitrates, which are so valuable as fertilisers, we now know to be due to the action of vegetable organisms similar to these which produce disease, and when these are absent or deficient we can supply them by direct inoculation.

How wide, then, and far-reaching has been the influence of this one bio-chemical discovery of the organic causes of fermentation, and I have but merely touched upon the fringe of an immense subject. Truly, the value of a new principle, however limited its application may at first appear to be, is incalculable, and the directions which its influence may take unlimited.

It is, however, clear that these discoveries, great as they are, form but the introduction of fresh problems. It is a great step to have traced the causation of disease to specific organisms which are tangible entities that may be seen, isolated and used as we will for the experimental confirmation of our theories. But our canon requires that causation should be pushed still further back, for there arises the next question—How and why do these germs produce their effects? Into this domain of inquiry we have now begun to penetrate. But as these considerations involve questions of somewhat greater complexity I shall most conveniently bring them under your notice in a concrete form; and in so doing, may I seek once more the indulgence of my medical brethren for dealing with matters which to them are so familiar.

TOXINS, ANTITOXINS, AND IMMUNITY.

Diphtheria, one of the oldest known of infectious disorders, is caused by specific living organsims, which, as a rule, gain entrance into the body through the nose or throat. Settling on some part of these regions, they rapidly multiply, and, at the same time, secrete a poisonous substance or toxin. This entering the circulation is distributed throughout the body, and poisons the tissues by interfering with the normal processes by which they maintain their vitality. In short, a *contagium animatum* from without produces a *virus inanimum*—a lifeless poison—which does the mischief within. Now, it is found that if some of this diphtheria toxin which, up to a certain degree of purity, can be obtained separately by growing the diphtheria germs in suitable culture mediums outside the body, be repeatedly, and in successively increasing doses, injected into the blood of a horse, this animal becomes so affected that it acquires, at length, the capacity of withstanding without symptoms, a dose of the toxin that would, without preliminary treatment, inevitably have killed it. In other words, using the terminology of the day, we say that the horse has been made immune to this special diphtheria poison. In this condition, the serum, or fluid part of the horse's blood, is found to contain a substance which, because it is antidotal to, or capable of neutralising diphtheria toxin, is called antitoxin. And when a suitable dose of this serum is injected into the blood of a human being, it may act either by preventing an attack of diphtheria—that is, it confers immunity in this respect—or, if the disease has not advanced too far, it acts as a curative agent. From this method of treatment arises the term so much in evidence at the present time—serum therapy; and speaking of this one disease—diphtheria—it may safely be said that by its timely application thousands of lives have been saved.

Now, it must be understood that this conclusion as to the antagonism of toxin and antitoxin does not merely rest on the results of trials on the living bodies of man or other animals, but its main facts are based securely on experiments in the laboratory, where it can be shown that if the proper proportions of the two substances are added together in a test-tube, the mixture is harmless when injected; the poisonous toxin has, in fact, been neutralised by the antitoxin.

The case of diphtheria presents us with one of the most satisfactory examples of the remedial application of the antidotal action of antitoxin on a toxin produced by bacterial action. In some other diseases, of which the now comparatively rare disease, tetanus, or lock-jaw, may be taken as an example, though laboratory experiments justify similar conclusions as to the manner of formation and interaction of these antagonistic substances, yet the application of this kind of treatment has not so far yielded such satisfactory results as in the case of diphtheria. For this relative failure we can recognise reasons which in no way invalidate the general conclusions, but these it is not necessary to discuss. We find also that the toxins arising from bacterial action are not alone in their power of generating antitoxins, for each kind of snake poison will similarly produce its own antitoxin, which, if it can be applied in time, acts as an efficient antidote, and so will ricin the poisonous element of the castor oil bean, and abrin the active principle of those bright red and black seeds called crabs' eyes, or Jequirity, both of these last-named poisons being far more powerful than strychnine. In all these cases the reaction may be demonstrated in the most certain manner in a laboratory experiment.

Considered merely in the light of a system applicable to the treatment of particular diseases, these facts concerning toxins and antitoxins are of great importance, but of still greater value are certain underlying principles which have emerged from some recent investigations on this subject, with which the name of Ehrlich will ever honourably be associated, although as in most other great discoveries, the whole result is not the work of a single mind. The great merit, in this respect, of this distinguished pathologist is that he has reduced the interactions of toxins and antitoxins, both *intra vitam* and *in vitro*, to principles of molecular chemistry and of chemical physics. He has shown that the interactions in question are subject, both qualitatively and quantitatively, to the known laws that govern chemical action. We are not able, it is true, with our present knowledge, to symbolise the reactions in question in the form of an equation, for we do not know the exact chemical nature of the substances involved, and, indeed, both toxins and antitoxins have not yet been isolated in a pure condition; but we have evidence that the former, at least, appears to be related to substances closely resembling products formed in the course of ordinary digestion. Consequently it is not improbable that, notwithstanding their poisonous character, the toxins are substances not far removed from these which form the normal food of the body tissues. Antitoxins are believed to belong to a closely allied group.

Ehrlich's theory further refers the chemical actions involved to those cells of the body on which toxins exert their influence. He shows us how, on grounds quite in harmony with physiological laws, the formation of antitoxins depends on the power possessed by the molecules of certain susceptible body cells to seize hold of, and anchor to themselves, the circulating toxins, and in so doing they are stimulated to an increased activity which causes them to liberate into the blood-stream certain substances which are, in fact, the antitoxins, and these, meeting the toxins, combine with them and neutralise their effects in much the same way as an alkali can unite with, and neutralise, an acid. Thus in the laboratory of the body are produced the same effects as when two chemical antagonists are mixed together in a test-tube.

Great as is the importance of this theory, from a therapeutic point of view, it has still a wider significance, for it throws light upon one of the central problems of physiology, viz., the nature of the chemical mechanisms of those normal physiological processes by which the living cells of the body regenerate their substance by incorporating the nutritive materials which form their food, and then again, by their activities, break down into waste material. And the conception has still wider applications, which will be mentioned directly.

We have seen ~~that~~ in diphtheria and tetanus the deleterious influence of their organic generators depends upon the production of toxins, which, indeed, may produce their effects quite independently of the actual presence of the germs themselves; but we also know that there is another class of diseases in which the effects are due to the actual bodily presence of the bacteria, and not to toxins which may be obtained from them. Of such a class are typhoid fever, cholera, plague, pneumonia, septicæmia and other forms of blood poisoning, in which diseases serum therapy is still on its trial, but, so far, with less certain and successful results than in the case of diphtheria. In immunising an animal against this class of diseases the object is to develope in it not a serum capable of neutralising the toxic product, but one capable of destroying the actual living bacterial organisms. This is done by using, for immunisation, cultures containing the bodies of the bacteria themselves, not merely their separated toxins. To the reactions which take place when these bactericidal sera, as they are called, are used, Ehrlich applies a chemico-physiological explanation similar to but more complicated than that which he gives for the relatively simpler affair of toxins and antitoxins, but this again it is not necessary to discuss.

By pursuing this line of research, it has been found possible to produce in animal serums a variety of these anti-bodies, as they may be called collectively, each of which has some specifically destructive action not only on such organic cells as are represented by bacteria, but upon other kinds of cellular units of complex fluids or organs, such as the red corpuscles of the blood, the cells of the liver, nervous system, and so on; and here can be seen the ground for the hope, so often expressed, but as yet unfulfilled, that by an application of this principle we may be able to develope a serum which shall have the property of destroying those cells of which a cancer or other malignant growth is composed, while leaving untouched the healthy cells. Or, if cancer should be proved to be due to a germ, we would seek for a serum which would destroy either it or its poison. Koch's tuberculin treatment of consumption, the tragedy of the failure of which we so well remember, was one of the many attempts that have been made to treat this disease on the principles we have been discussing. Nevertheless, now that we know so well that in this and many other diseases we have to deal not with a nameless and unknown something, but with a definite and specific organism, with whose conditions of existence we are perfectly familiar, the hope remains that the defeat in these cases may not be final. Indeed, we have good grounds for hoping that the organic generator of every disease, once it is known, may be made to produce its own antidote. This surely is a magnificent conception.

Nor even do the results of these investigations stop here, for out of them have arisen new methods, more precise than any others available, for the identification of various bacterial species ; means, more delicate than any other test for detecting the presence of toxins; a means of diagnosis for typhoid fever ; a method for the determination, with extraordinary accuracy, of the resemblances and differences between the blood of various species of animals, which is capable of being applied in the courts of law for the identification of blood stains. The same methods can be applied also for the purpose of determining the relationships of species and groups of animals by demonstrating the fact that " there has persisted a common property in the blood of various groups through the countless ages that have elapsed since their evolution from a common ancestor, and this in spite of differences of food and habits of life."

Lastly, from an exhaustive study of the phenomena of old age, to which an increasing amount of attention has been paid of recent years, the distinguished physiologist, Metchnikoff, whose name is a guarantee that he does not speak as a visionary enthusiast, and who, himself, has borne a conspicuous part in the investigations that we have just been discussing, has suggested that it may be possible to apply the principles of serum therapy to the arrest of those senile changes which we have been accustomed to believe form the inevitable and distressing concomitants of old age to the end that we may prolong the usual span of life. Be this as it may, the increasing study devoted to the conditions of old age make it abundantly clear that many of its painful incidents are of our own making, and, above all others, the deleterious effects of alcoholic excess in bringing about premature senility and decay stand out in malignant relief.

In these days when the question of serum therapy and immunity loom so large in the foreground of medical science, we may, in the light of recent discoveries, recall the epoch-making discovery of

VACCINATION.

A little more than a hundred years ago the Englishman, Jenner, recognised what seems at that time to have been common knowledge on the dairy farms of Gloucestershire, that persons who had contracted cowpox—a mild disease—from their charges, did not, as a rule, afterwards contract the virulent disease smallpox, and vaccination is the methodised application of these observations. It rests on the basis that by the introduction of a weakened poison, such as that of cowpox, which is, in effect, smallpox modified and mitigated by its passage through the cow, it is possible to establish in the body of man a certain insusceptibility to, or tolerance of, the poison of smallpox, so that the latter disease is either not contracted at all, or, if contracted, it assumes a milder form. Thus vaccination is but a special application of what we now know to be a general principle.

I need not dwell on the fact that by the general adoption of vaccination, smallpox (which from the 13th century ranked as the most destructive of pestilences) has been, if not completely eradicated, at least greatly mitigated in its prevalence and effects wherever communities have been willing to avail themselves of the protection afforded by the practice. On the other hand, we have had frequently manifested the power of mischief that may arise from its neglect and from a policy of indulgence towards that type of person who calls himself a conscientious objector.

You will see why I have recalled this episode of medical history. It is, of course, because the basic principle of Jenner's discovery has received such ample confirmation by the recent investigations in serum therapy and immunity. But, we may ask, why did vaccination remain more than a century as the single example of an immunisation conferred by this method? The broad idea of establishing artificially an immunity for poisons is itself very old, for, as we learnt in our schooldays, Mithridates, King of Pontus, in the fear of attempts upon his life by poisons, produced in himself a tolerance of their effects by the habitual and continued taking of them in small doses. The term Mithridatism, still applied to the tolerance to poisons thus produced, perpetuates the name of an early practical exponent of artificial immunisation.

We may, I think, safely say that the reason why vaccination remained for so long as the sole example of protective inoculation was because it was an empirical discovery in the sense that no underlying principle was discerned which would admit of its explanation or its extension to other cases. The fact of its protective influence was known, and, indeed, was so obvious that the practice of vaccination was adopted by most civilised communities, though, let us regretfully admit, with greater thoroughness by others than the countrymen of the great Englishman who devised it; but no rational explanation of the cause of the fact was forthcoming, and this is just what Ehrlich's theory attempts to supply.

Even if, as is very probable, it will ultimately be found out not to be correct in all its details, it may safely be said that its fundamental principles will never die, and nothing can minimise the stimulating influence of this very remarkable conception that has radiated in so many diverse directions. It is, then, not a little remarkable that, in these days when the principle of Jenner's discovery has been so amply vindicated and extended, and when some of its undoubted original dangers have been removed by better methods of application, that we witness a marked tendency to neglect the protection which the world's experience has shown it so conspicuously affords.

With this wide, and ever widening, scope of the principles involved in the recent theories of immunity, it is no wonder that they occupy so prominent a place in modern medicine. Nor, as we have seen, is their application limited to the processes of disordered function with which medical science has to deal, but it extends towards a better understanding of the normal physiological mechanisms of all living tissues. They illustrate the conception that is being so surely borne in upon us that medical science, like biology, of which indeed it is but a branch, requires for its elucidation the convergence upon it and application to it of fundamental physical and chemical conceptions. No better example could be given of the value to science of a well-ordered imagination and of a good working hypothesis, or of how investigations in one field may open up unexpected discoveries in many directions. The dreams of to-day become the realities of to-morrow, and in these theories we have a germinating idea which is destined to grow into a tree of knowledge whose manifold branches will bear abundant fruit.

THE ANIMAL KINGDOM IN RELATION TO DISEASE.

So large is the rôle played in disease by those minute vegetable organisms that we collectively call bacterial germs that we are apt to forget that the animal kingdom also provides its contingent of deadly enemies to the human body. Putting aside those grosser forms of parasitism, such as hydatids, tapeworms, and the like, which are not as a rule fatal, it is now well known that in another class of diseases, infectious but not contagious—such as the various forms of malaria, yellow fever, and others—the exciting cause is the presence in the body of minute organisms which belong to the lowest class of animals, and, further, that the transmitters to man of these low organisms are to be sought amongst other and higher orders of animals. In the diseases particularly mentioned it is now well established that mosquitoes of certain sorts are both the agents in the transference as well as the necessary hosts in which a part of the parasite's life's cycle of development takes place. Thus the problem of the abolition of these diseases resolves itself into a question of the destruction of the breeding places of mosquitoes, which task, apparently at first sight so impracticable, has met with a gratifying success wherever it has been intelligently and persistently undertaken. That terrible disease, sleeping sickness, which devastates a large belt of tropical Africa, is similarly caused by a minute animal parasite transmitted to man by a tsetze-fly. Sleeping sickness is, in fact, the human form of that deadly complaint known as nagana or tsetze-fly disease which renders large parts of South Africa uninhabitable for the introduced domestic animals. Other forms of the same fatal animal disease are those known in India as surra and in North Africa as dourine. The agency of animals in respect to the causation of infectious disease is also shown in plague where there is good reason to believe that rats, and perhaps mice and fleas, act as carriers to man. We strongly suspect house flies to be agents whereby typhoid fever, cholera and forms of blood-poisoning may be distributed. Anthrax and glanders come to us from the horse, sheep, and ox. Our common tapeworms, through the pig and bovine cattle, and the familiar friend of man —the dog— is, as we have long known, practically the sole source of hydrophobia and hydatids. From the knowledge of these and many other similar facts it has followed, as part of our recent views, that medical science refuses more and more to be bound by the rigid limits formerly prescribed for it, viz., that the human body and its diseases are to be regarded as isolated factors to be considered apart from their organic environment. It has been compelled to recognise, what the zoologist has long recognised, that man is only a unit in the world of living things, inter-related not only in structure but in disease with his animal and vegetable surroundings.

While I speak of this subject, perhaps it is not out of place if I utter a word of serious warning in respect to the danger that now confronts Australia from the ease with which some of these fatal diseases of stock, from which we have hitherto been free, may be introduced into this country. Occurring all around us—in South America, Africa, Mauritius, India, Manila, and New Guinea—they are, with the frequent and increasing means of communication, knocking, so to speak, at our very doors. And if ever they, or any of them, should through carelessness or misadventure gain a footing in this land, you may depend upon it that the result will be a destruction of our flocks and herds that is inconceivable to those unfamiliar with their deadly effects in other countries. Ask of Africa what it has lost from nagana, dourine, rinderpest and horse sickness; India, Mauritius and the Philippines from surra; South America from mal de caderas; and from the answers let Australia take warning before it is too late. A few hundreds a year spent now with intelligent and prudent foresight in securing the services of some competent and scientific expert, who has had large and practical experience of the highly complex and difficult problems which attend the investigation and management of this class of disease, might be the means of saving millions of money and untold trouble in the future.

All these discoveries, then, which I have mentioned, with their extensive ramifications, constitute great and important advances not only in the wealth of added facts, but also in what is still more important, in the widening of our ideas concerning the nature of living activities and those departures from the normal we call disease. Already they have profoundly influenced our medical and surgical theory and practice, while they are full of hope for the future. Together they have led to the establishment of what is practically a new science, that of preventive medicine, which, in its turn, has led to the virtual suppression of some diseases and the mitigation of the effects of others. Were it not for ignorance, apathy, and that self-complacency which is so essentially a characteristic of our own British race, the results would be still more marked. Indeed, success in this direction has led a cynic to observe that medicine has made prodigious progress in all things except in the treatment of disease; and there is some truth in the sarcasm, but if we are not much better able to *cure* diseases, in the full sense of the term, than were our forefathers, we are certainly much better able to prevent them, and we may regard this as the higher and better function.

RATIONAL THERAPEUTICS.

We have, however, learnt that there are other and wiser methods of treatment than by a multitudinous, and often haphazard, polypharmacy, for we have a much deeper knowledge, to which the recent investigations into the conditions of immunity have largely contributed, of how great, how manifold, and how effective are the natural recuperative powers of the healthy body which were long ago recognised in the Hippocratic aphorism, *vis medicatrix naturæ*. We have discovered, or, at all events we better appreciate, the facts that fresh air, abundant sunlight, change of scene and climate, better and more suitable dietaries, are in themselves potent therapeutic agents, and not the least important discovery is the realisation that the doctor's best function often is to be simply the *homo minister naturæ*. We have successfully applied the actinic rays of light to obstinate and disfiguring complaints of the skin, and we have invoked, with as yet uncertain success, as therapeutic agents, some of those mysterious and potent electrical and radioactive emanations, placed at our disposal by the recent extraordinary developments of physical science, which bid fair to exhaust the Greek alphabet in their provisional nomenclature. By the researches of the synthetic chemist we are able to use medicaments of absolute purity and known chemical composition, instead of crude drugs of varying and uncertain contents, while a more extended knowledge of molecular structure has directed attention to a possible connection between chemical constitution and physiological action which must eventually lead to a more accurate and scientific therapeusis.

That comparatively recent development of physico-chemical science, known as the ionic dissociation theory, which gives us a rational explanation, up to a certain point, of such intricate living actions as the contraction of ordinary muscles and of the rhythmic and ceaseless beat of the heart, the transudations of physiological fluids, and has even been applied to the explanation of that mystery of mysteries, the fertilization of the egg-cell, is similarly applicable to the chemical mechanisms involved in the action of drugs, germicides and disinfectants, as well as to many of the activities of the living body. Again we come back to the fact that the more we learn of living actions the more do we find that they may be referred to the same laws of physics or chemistry which govern the relations of inert matter.

MEDICAL SCIENCE IN RELATION TO THE COMMUNITY.

But while we may contemplate with much satisfaction these great advances in medical science, let us not forget that the ledger of national life has its other side, which is not so flattering to our side of progress. That gaunt spectre, cancer, with its allied malignant maladies—the *opprobrium medicinæ*—the dread of which is an added terror to the frailties of old age, still stalks the land, claiming in thousands its victims of unutterable pain and misery. In spite of all our boasted progress we have not even learned their cause; we do not know the remedy, save in so far that all experience tells us, more and more, that early and complete removal, and the earlier the better, offers a good hope of recovery. To this let all take heed, and they may take the comfort they may so sorely need. On this problem of malignant disease is now being concentrated, in an organised system, some of the best minds of the medical profession throughout the civilised world, and it may well be hoped, nay, it may be expected, that its solution will not long be delayed, to the glory of medicine and the infinite relief of human suffering.

The great white plague, consumption, in spite of our knowledge of its cause and of the conditions which will bring about its prevention and cure, still slays its myriads, far exceeding those of battle and all other pestilences combined, in the most interesting, joyous, and useful epochs of their lives; but it may also be said that if tuberculosis is still propagated it is not because of the failure of science but because of ignorance, apathy, wilful neglect, or, it may be, genuine poverty on the part of those who still continue habits and practices which are responsible for its prevalence and spread.

We go into hysterics at the thought of the advent amongst us of some rare visitant disease, such as bubonic plague, smallpox, or leprosy, but we complacently tolerate the continuance in our midst of typhoid fever and diphtheria, which are perfectly preventable, and whose tale of victims is far greater than that of the former. We fail to have our children vaccinated, or to be ourselves revaccinated, by which means we might render the community secure against a severe smallpox epidemic, while our Governments, with all their love of compulsory measures, tolerate the neglect, preferring rather, or at least finding it sometimes necessary, to spend thousands in the effort to eradicate what might be prevented.

We see unmistakable evidence of the physical deterioration of the race due, no doubt, to many co-operative factors into which I may not enter, except to say that one contributory cause is the tendency for people to flock to the towns, where the mothers of the future pass the most important period of their lives—that of early adolescence—under the unfavourable, or even injurious, conditions of crowded and ill-ventilated working rooms. The cry " back to the land" may have a wider and a deeper significance than the mere desire to fill up the blank spaces on the map with profitable industries. It is rare to see even a child with a sound set of teeth, a defect most frequently due to their neglect, to which many an ailment, both then and afterwards, may be traced, and there is much truth in the observation that toothpowder may serve as a better national protection than gunpowder.

It cannot also be doubted that the progress of medical science has been a contributory factor in this degeneracy, by bringing about the saving and the prolongation of the lives of those who are physically or mentally unfitted to be the parents of a healthy race. This brings us within sight of the eternal disharmony between the tendency of the work of our social, political and ethical systems, of our hospitals, asylums and the like, which are directed towards a similar end, and the efforts of unaided nature, " red in tooth and claw," which, by the elimination of the unfit, strives with unceasing purpose only for the improvement of the race and the survival and perpetuation of its best. And if time permitted it would be an interesting study to see what an important part has been played by disease in the evolution of the human species, and how civilised man, by his migrations, his diseases, and his meddling, has disturbed existing harmonies and altered, often for the worse, the organic face of the earth. And that the degeneration of which I have spoken is not merely physical, but extends also to the mental organisation, is shown by the striking and progressive increase, both in the number of the actually insane and in the increase of those nervous complaints of which neurasthenia and the like may be taken as the type ; this phenomenon being apparently characteristic of all highly civilised communities, and for which the mental strains and stresses of modern life and intemperance are held to be chiefly responsible.

Co-relative with the question of physical deterioration is the ugly fact, for some time suspected, and recently confirmed by the report of a Royal Commission in a neighbouring State, that the decline in the birth rate, which we have been accustomed to think of as a feature only of those older countries which have had to face the problems of over-population, has extended to these sparsely-peopled States, and that all classes are affected, even those who have not the burden of want to offer as an excuse. Thus one of the conspicuous signs of national decadence is beginning to affect us while we are still a nation in the making. And the causes at work, clear and distinct, and, for the most part, disreputable, bring with them the uncomfortable idea of a concomitant general loosening of moral fibre which will inevitably radiate its evil influence in other directions. Here, at least, is a field in which that democratic panacea, compulsory enactment, is powerless.

Closely connected, in respect to cause, with the question of physical degeneration is the excessive mortality of infant life, for which, as in the former case, inadequate and improper feeding are more largely responsible than any other single cause, and this, when not due to genuine poverty, is attributable to the lamentable ignorance on the part of those who are mothers, which our vaunted system of education does little to remove. If we are powerless to counteract those malign and other influences which underlie the reduction of the birth rate, it ought not, at least, to be an insuperable problem, and, indeed, it is our obvious duty to find means for preserving more of those infants we have.

The hydra-headed monster, alcoholic excess, still dwells with us, bringing in his train poverty, crime, endless social and domestic misery, and physical and mental suffering, predisposing to disease, and second only to another cause, also begotten of human frailty, in bringing about those degenerative changes which lead to senile decay and premature old age. The solution of the alcohol question would be the solution of many an ill to which weak flesh has made itself the heir.

We still show little wisdom in our dietaries, either in quantity or quality ; we still continue to " dig our graves with our teeth " and lay the foundations of disease, amongst which may be mentioned the prevalent complaint, appendicitis. In this respect we in Australia should pay more heed to the evils of our excessively carnivorous diet, to which many of our ills may be traced.

Reviewing these and other physical disabilities which it is the lot of man to suffer and endure, it must in fairness be admitted that the responsibility for the existence and continuance of most of them cannot be laid at the door of medical science. Where this has been able to intervene it has done so with some success, as witness the results of preventive medicine. If we except from the category cancer and some other diseases in which we must regretfully confess the present impotence of our profession, the majority of these physical ills have now, for the most part, largely become social questions, and their solution, when the doctor, speaking in the name of science, has pointed out the cause and cure, lies in the individual and collective efforts of the people.

If, owing to ignorance, apathy, or self-indulgence, they still continue to exist, it is the community, not the doctor, who is responsible. And it would be better if society, instead of blaming science, as it frequently does, that it cannot find ways of curing disease, set its house in order and by abstaining from hurtful ways automatically abolished a vast amount of suffering.

Sometimes the advice and precepts of science are wilfully disregarded, as in the case of vaccination, where the effective remedy is deliberately thrust aside with the approval or even the instigation of politicians, who care more for the votes than for the bodies of their constituents.

Then think of the enormous sum of human improvement, physical, mental and moral, that would accrue to a great mass of the people if only that one factor in the predisposition to and causation of disease, intemperance, were eliminated from their lives by deliberate voluntary restraint, for I have no belief whatever in the permanent efficacy or benefit of those prohibitive measures which are so often advocated as the only possible panacea. It is stated that two-thirds of the immense national drink bill is incurred by the working classes ; how surely, then, would the diversion into healthier channels of money saved in this direction bring an automatic relief to those who are most concerned—a relief from an untold amount of grinding poverty, sickness, and mental and moral distress! And to a degree much greater than is realised, how very much longer and healthier lives we should lead if we refrained from eating so much, so often and so unwisely. What might be done towards the relief, or even the abolition, of that scourge of home life, consumption, if only people would cease from doing those things which favour its propagation and continuance, and would do those which, they can be told in all honesty, will with certainty prevent its spread and bring about its cure. But how shall we blame the general public for their errors of commission and omission when those who cannot claim the excuse of ignorance, in defiance of risks that are not so imaginary as they seem to think, persist in continuing the reprehensible and insanitary practice of the promiscuous transference from mouth to mouth of an uncleansed communion cup. So, too, any betterment in respect to the unsatisfactory and unwholesome conditions which prevail in connection with physical deterioration, decline of birth rate, infant mortality and the like, is only to be expected from a rude awakening of the public conscience and the adoption of a sane and rational system of training in those hygienic and physiologic matters which, though of such great importance for the sound mind and the sound body, yet are so inadequately treated, or even entirely neglected, in our systems of education.

The suppression of malaria and yellow fever has become, as we have seen, a question of the destruction of the right sorts of mosquitoes ; plague, largely of the extermination of rats and of the filth which usually invites their presence ; cholera and typhoid, of pure water and uncontaminated food ; hydrophobia was speedily eradicated in Great Britain by the much abused order for muzzling dogs ; and in a hundred different ways the fact is obvious that what were once considered medical questions have now to a large extent resolved themselves into social problems.

REVIVAL OF QUACKERY AND OCCULTISM : INFLUENCE OF THE MIND ON THE BODY.

Whether it is to be considered as a social failing or only an amiable foible, it is nevertheless true that the boundless credulity of mankind, upon subjects connected with medicine, has from earliest times been a conspicuous feature in his life, and it is not a little remarkable that an age which has witnessed so great a growth of scientific precision in our medical methods and conceptions should be also characterised by the revival of superstition, a belief in occultism and quackery of all descriptions that would be worthy of mediæval times. It is particularly remarkable that these beliefs and the habits and practices begotten of them are not confined to the ignorant, but prevail notoriously amongst those who belong to the educated classes. We see the columns of the press filled with the announcements of clairvoyants, professors of second sight, palmists, herbalists of various nationalities—and the more outlandish the more sought after—hypnotists, crystal-gazers, faith-healers, and a whole tribe of a similar sort, many of the designations being merely cloaks for practices much worse than is indicated by their names. We are told that imperfect noses can be corrected by absolutely painless methods; that double chins, drooping cheeks and wrinkles can be removed, and that ruptures can be cured without operation. There are infallible remedies for cancer, consumption, obesity, baldness, alcoholism, narcomania, and numerous other diseases. Columns are filled with the marvellous and unfailing virtues of somebody's pills, potions, syrups and other nostrums—the same article professing to cure a whole group of the most diverse complaints; while flamboyant posters portray the features of the eminent specialists who deal in them. There is an abiding faith, chiefly among the more educated, in various routine "systems of treatment," as they are called, which pass under the names of their exploiters. And have we not seen in recent times worthy and otherwise blameless citizens pinning their faith to the efficacy of an iron ring as a cure for rheumatism?

One of the most recent developments of this revival of superstition is the pseudo-religious movement which passes under the name of Christian Science, with the Rev. Mary Baker Eddy as the chief exponent and apostle. As an example of the fatuous twaddle which passes for Mrs. Eddy's gospel, let me give you the following extract, which is part of an invocation for the cure of cancer of the stomach, one of the most real, most objective, and most distressing of complaints:—

"Lord, help us to believe that All Evil is Utterly Unreal; that it is silly to be sick, absurd to be ailing, wicked to be wailing, atheism and denial of God to say I'm sick. Help us to stoutly affirm with our hand in your Hand, with our eyes fixed upon Thee, that we have no Dyspepsia, that we never had Dyspepsia, that we will never have Dyspepsia, that there is no such thing, that there never was any such thing, there never will be any such thing. Amen."

Surely no mumbo-jumbo of Haitian Obi-man could be more ridiculously inept; and yet this is the sort of thing that has gained the concurrence and approval of many more or less educated people. Nevertheless, however repellant we may find the methods and practices of these charlatans, and however silly we may think them, in an age which professes to be one of reason and enlightenment, it is very evident that they must find their trade profitable, for they continually increase in number, in the voluminousness of their announcements, and, we may add, in the impudence of their pretensions.

True of all times and of all sorts and conditions of men and women, and never more true than in this connection the Hudibrastic distich—

> "Doubtless the pleasure is as great
> Of being cheated as to cheat,"

embodies a profound knowledge of human nature, and condenses a practical wisdom which explains the facile success of many a rogue and charlatan with their confiding dupes.

To our sorrow and discomfiture it must, however, be admitted that we doctors have all of us, at some time or another, met with cases in which so-and-so's patent pills have cured our patient, when precisely the same ingredients (for the composition of all of these remedies is no secret) have failed, and do we not know, all of us, at least who have served our time in a large hospital, the marvellous efficacy of the local brew of *mistura diabolica*, concocted with quite other objects in view than that of scientific medication? There can be no doubt of the reason of many of these successes, which is, in fact, the principal foundation on which all kinds of quackery is based. It is that the confident assertions and brazen effrontery of the purveyor of the patent medicine has produced an expectation of, and a profound belief in, its efficacy which contributory factors often fail to accompany the orthodox prescription. This statement brings us within sight of the great question of the influence of the mind on the body—a factor, curiously enough, more recognised by the laity than by the medical profession—not only as manifested in one and the same person, but also as between two different individuals. The potency of this influence everybody freely admits, but few of us actually take it into serious consideration in our practice. We were never taught anything about it in our medical course, nor do we teach it now, and but little attempt has been made to organise and systematise our scattered, but yet considerable, mass of knowledge of the subject. Yet there is no doubt but that the power to utilise, consciously or unconsciously, this mental factor in medicine is the real secret of the success of many a physician who, except in this respect, has no better medical equipment than his less successful compeers. Though we ridicule the quality, yet really we all envy the possession of a good bedside manner, which is only one mode of expression for a pleasant and reassuring comportment, and it is just faculties belonging to the same category which account for much of the success of the advertising fraternity. "Two mighty powers," says the writer of a recent book, "work for good in every physician worthy of the name: what he knows, and what he is; but, alas! as a rule, we only value the former." This well suggests the too often neglected powers that may lie behind the personality of the physician.

Gradually we are learning that the abundant faith which inspires to noble deeds and to the enduring of great suffering is a form of mental energy which may be diverted into the swelling therapeutic stream, but it is a pity that the chief exploitation of this potent force should have so chiefly fallen into the hands of unscrupulous impostors and charlatans ignorant of all things except the illimitable credulity of human nature.

Here, then, is a wide field of investigation for the physician of the future, from which a rich harvest may be expected.

CONCLUSION.

It has been my endeavour in this address, in which you may well say that I have wandered from the Dan to Beersheba of medical and social science, to present to those who do not belong to our profession some account of its aims and methods; of its triumphs over physical ills; of its hopes and aspirations for the future, and of the vivifying influence of some principles of science which have so greatly contributed to its advance. I have endeavoured to show that man must be considered only as a unit in the world of living things, closely inter-related by his diseases with his animal and vegetable surroundings, and that medical knowledge, consequently, stands not apart from, but part of, the great body of organised science; indeed, more and more it is borne in upon us that not only every science, but also every system of truth, is intimately connected with every other. From these facts it arises that the investigation of an ever-increasing number of diseases have virtually resolved themselves into problems of botany, zoology, or of physical chemistry. We see how wide has become the scope of preventive medicine, and, by a slight stretch of the imagination, we may almost foresee a hygienic millennium in which all diseases shall be abolished, leaving only accidents and the inevitable incidents of old age. These latter we are on the one hand assured by one of the most eminent of living pathologists, might, by appropriate treatment and a better living, be postponed to a period considerably beyond that at which we now accept them, with what resignation we may command; while, on the other hand, to those of us who have passed the meridian of days, it comes as an uncomfortable suggestion from a man of science, of equal eminence in another branch of medicine, that an anæsthetic euthanasia is the most fitting treatment for the sexagenarian.

For my part I prefer to pin my faith to the optimistic view rather than to the homicidal treatment, and I fancy there are many similarly conditioned in point of years who will have the same preference.

Then it has been indicated, very perfunctorily, as I am too well aware, that many of the medical questions relative to disease have passed out of the domain of medicine and entered that of social and political science, in which again they are dependent upon individual, collective and organised efforts scientifically directed and persistently carried out. Had I not outraged your patient indulgence by the length of my remarks, it would have been interesting and possibly profitable to examine the extent to which these efforts have been successful, or, alas! too often inefficient or even unattempted.

Science has, I think, shown by its achievements and by its energies that it may be trusted to continue to do its share in the world's work; but how shall we, in an age distinguished by its shams, shoddy and superficialities, inculcate and foster that spirit of lofty patriotism, self-reliance, self-restraint, supreme devotion to duty and unceasing striving for excellence in all things undertaken, which are the real foundations upon which a nation's greatness rests?

It is well that we should realise before it is too late that a nation's pre-eminence depends not alone on the extent to which its collective intelligence is organised and co-ordinated along the many diverse paths that lead to success, but also on the high sense of duty and self-sacrifice of its citizens. And the doctor may perhaps be forgiven if in his capacity of a social unit of the community he ventures to say that it is impossible to view without anxiety the prevailing tendency of the day towards the pursuit of pleasure and the decline of high enthusiasms and beliefs in ideals. In this we may see the sacrifice of many things that have made our country great, and the presence of many that have contributed to the downfall of great nations in the past. It is said of us, with too much truth, that we are apt to be in earnest about trifles and to trifle about earnest things, and this in days when, with unexpected suddenness, our national patrimony, nay, our very existence as a great nation, may become the stake for which we shall contend with others less self-complacent than ourselves.

Many lessons have been taught to a wondering and startled world by the great Manchurian drama, but they may all be summed up in the one singularly happy and comprehensive appreciation, which we who deal with the lives of men may well take to heart: "Nothing but the best will do." This, after all, is but the most modern variant of that venerable exhortation of the preacher, applicable to all men and for all time:

> "Whatsoever thy hand findeth to do, do it with thy might."

SOME RECENT OBSERVATIONS ON CANCER AND TUMOUR GROWTH.

Presidential Address delivered in the Section of Pathology, Australasian Medical Congress, Adelaide, September, 1905.

By D. A. Welsh, M.A., B.Sc., M.D., Professor of Pathology in the University of Sydney.

Of all the great scourges of mankind, only one remains untempered by that scientific study of disease which we term Pathology. Smallpox, except in isolated outbreaks, is a thing of the past. The pyæmia that was wont to render perilous every surgical operation has yielded to antiseptic and aseptic measures. Diphtheria and hydrophobia have been robbed of half their terrors. Bubonic plague, despite the colossal failure of India, may be successfully combated in an intelligent community. Outbreaks of enteric fever and of cholera are in every sense of the word preventible. The prevalence of malaria, with its long tale of disablement and death, is conditioned by the facilities provided for the breeding of mosquitoes. And that tuberculosis should continue to be of all diseases the most wasteful of human life is a fact that is not creditable to us as a profession nor to us as a people, for it is due wholly to the disregard of what pathology with no uncertain voice has taught. But cancer and tumour growth are as rife to-day as ever. If there be any change, it is probably not in the direction of abatement; and, even if there be abatement, pathology has contributed nothing to it. No means of prevention is known, nor certain means of cure. The only relief—that afforded by careful, free, and prompt excision—is at the best uncertain.

No problem in pathology, therefore, is more urgent, or more elusive, than that of the nature and origin of tumour growth, and within recent years there has been awakened interest and renewed activity in its investigation. Under the gracious patronage of his Majesty the King, the Imperial Cancer Research Fund has been inaugurated on a scale unprecedented in the history of medicine, while the able workers who are more directly responsible for its scientific application have made excellent use of their unique opportunity. Elsewhere in Europe and in America many similar institutions have been started, and under their auspices, as well as independently, much good work is being done. The result is that since the last meeting of this Congress, when papers on cancer, of great interest and value, were read by Professor Allen and other members, there have been published observations and hypotheses of a most noteworthy and suggestive character. That as yet their full significance is uncertain and their practical bearing unknown does not detract from their present interest as illuminating conceptions, nor from their permanent value as fresh scientific truths. It is with the object of inviting your attention to some of this recent work that I have framed my address, although the time at my disposal will necessitate a very fragmentary review.

It is unnecessary to introduce subleties of definition or to discuss the relation of tumour growth to those conditions known as inflammatory. I have throughout used the words tumour, new growth, and neoplasm as interchangeable, and the word cancer as connoting all the more malignant forms irrespective of structure. I have occasionally used a general term instead of the more restricted term cancer or malignant growth, because, in my judgment, any explanation of the nature and origin of the most malignant forms (cancer and sarcoma) must be ultimately applicable to the least malignant (benign) forms also. The varying degrees of malignancy and the various factors that condition malignancy are mainly dependent upon attributes that are common to all neoplasms, though not always present in the same degree. The distinction between a malignant and a benign tumour, all-important in clinical practice, depends not on any essential difference in kind, since all neoplasms alike are independent of the needs of the parent organism, and independent of the laws that regulate the growth of the parent tissue, and exhibit, moreover, a certain mutual independence and intrinsic vitality in their constituent cells. The distinction depends rather on the degree to which are developed these fundamental attributes, and also depends upon such accidental conditions as the ease with which the individual cells may be mechanically detached from the tumour mass.

Artificial Production and Transplantation of New Growths (Neoplasms).

Half a century ago the scientific genius of Virchow laid the foundation of modern experimental pathology in two general biological principles—(1) that every cell in the body is descended from a pre-existing cell, and (2) that the reactions of the living cells of human tissues are essentially similar to the reactions of other animal cells—so that it is legitimate to argue from what occurs in animals to what occurs in man. Both of these principles became of fundamental importance in relation to cancer research since it became known that animals, too, suffer from new growths of which the structural details are often identical with those of tumours occurring in man. In view of these principles and facts it has long been recognised that the artificial production and transplantation of tumours in animals was essential to the proper study of neoplasia or tumour growth.

To this end innumerable experiments have been made, and, when investigation flagged under the deterrent influence of consistently negative results, a fresh stimulus was given by the development of bacteriology. The resemblance between the invasion of a cancer and other infective processes which had been compelled to yield the secret of their origin fostered the expectation that the cause of cancer also would be found in some form of microbe. Many different parasites were described within cancer cells, several were obtained in pure culture, and a few inoculated into animals gave rise to cell-proliferations somewhat resembling tumour growth. But such resemblances were only superficial and misleading. Notwithstanding the great amount and the occasionally brilliant character of such work, it must be conceded that no one has yet been able to originate an unequivocal new growth by the agency of any parasite.

When healthy tissue is transferred from one animal to another, the graft may "take" or may fail to "take." The probability of success is greater when the graft is made into another animal of the same species. Such an artificial graft may form a hypertrophic overgrowth when transplanted from a less vascular to a more vascular site, but it never acquires the independent and unregulated growth characteristic of a tumour in the sense in which we are using the term. The oft quoted experiment of Lambert Lack, who in 1900 disseminated the ovaries of a rabbit throughout its peritoneal sac, and more than a year afterwards found an extensive cancerous infiltration of the abdominal and thoracic viscera, is open to other interpretations. This particular experiment, moreover, has been many times repeated with invariably negative results. In July, 1903, I instituted a series of transplantations of epithelial cells from the chorion, ovary, thyroid, adrenal, and epidermis in such animals as guineapigs, rabbits, cats and dasyures, the transplantations being made into other parts of the same animal, into other animals of the same species (of the same and of opposite sex, and at different ages), and into animals of different species, but, with one doubtful exception, I succeeded only in adding another to the long list of failures to produce tumour growth by this means. The exceptional case was that of a guineapig into whose peritoneal sac chorionic epithelium from another guineapig had been introduced, and which later died, having in its pelvis a large mass of recently extravasated blood in which proliferating chorionic epithelium was found.

When introduced into animals of different species, the transferred cells are usually, though not invariably, destroyed by cytolysins, the living tissues reacting towards them as towards other alien albuminous molecules. Occasionally, however, the alien cells are tolerated and may even be adopted as integral portions of the new organism. Blood corpuscles, for example, do not invariably undergo hæmolysis when transfused into animals of different species, and grafts of epidermis from the rabbit and the puppy may thrive on denuded surfaces in man. It is important to recognise these facts, since they indicate no reason why cancers should not occasionally be transmissible to alien species. It is known that epitheliomata tend to arise in the cicatricial tissue of old burns and in other scars, and it would be interesting to ascertain whether the liability is greater when no grafts have been made, or when grafts have been taken from another person of earlier or later age, or from animals whose term of life is shorter than that of man—whether, in fact, the presence of an epithelium of a different tenure of life has any relation to the incidence of epithelioma.

The secondary dissemination (metastasis) of certain malignant new growths may be regarded as a process of natural transplantation, and illustrates the possibility of transferring such tumours to other parts of the same individual. That this may be accidentally effected in the excision of a malignant growth has been repeatedly emphasised. If a cancer be incised during removal, cancer cells may escape from the cut surfaces, or be carried by the knife into adjacent tissues, and becoming there implanted give rise to a local recrudescence. Moreover, a growth of restricted malignancy may accidentally be given an opportunity of extensive infiltration, as when a cystic adenoma of the ovary is ruptured and the liberated epithelial cells infect the peritoneum.

Since, therefore, a natural or artificial dissemination of certain tumours is so readily effected in the individual in which they originally grow, it might be expected that such growths would bear transplantation at least to other similar individuals. Such an expectation is far from being realised. Human new growths have never to my knowledge been transmitted to other animals, notwithstanding many attempts, of which a most extensive series was undertaken by Shattock and Ballance in 1890. Nor am I aware of any authentic instance of the successful transference of a new growth to an animal of different species. Even when inoculations are made into animals of the same species, except in the case of certain infective granulomata which are not true neoplasms, the usual result is failure, and at the date of the last meeting of this Congress in February, 1902, only a few isolated successes had been recorded. Obviously, such a record of failure has constituted a serious bar to the investigation of tumour growth.

The first to achieve systematic success in the transplantation of tumours was Jensen, of Copenhagen, whose results were not made generally known until 1903. In the same year Borrel, of Paris, published another series, and in 1904 there appeared the first scientific report of the Imperial Cancer Research Fund, in which further examples were recorded. All these successes were obtained by transplanting tumours of mice to other mice. In no other animal, with the single exception of the rat, which is of the same genus as the mouse, has there been effected a successful transplantation of a neoplasm even from another individual of the same species. Attempts to transfer malignant new growths from the horse, dog, cat, rat and carp to other animals of the same species have at the hands of the Cancer Research Fund resulted in failure, although in the case of the dog, cat and rat over 900 inoculations were made. In December, 1904, I made an endeavour to transfer a squamous epithelioma from a dasyure (*Dasyurus Viverrinus*) by inoculation into 15 other dasyures and into 10 cats, but nearly all the animals died within a week of a virulent septicæmia, and of the few survivors the dasyures prematurely fell victims to the misplaced zeal of another worker in the University, while the cats (three in number) show no sign of new growth to this day.

Earlier in the same year I had, through the kindness of Mr. A. S. Le Soef, of the Zoological Gardens, Sydney, obtained specimens of cancer from a lioness and from a tigress, both of which were old animals and, by a remarkable coincidence, had died within a few days of each other. I have now under investigation a growth from a frog (*Hyla Aurea*) which I received a few weeks ago through the kindness of Dr. Chapman, and with it I have been able to infect other frogs, but I have not yet been able to determine whether it is a true neoplasm or merely some form of infective granuloma. I have not yet been able to obtain a new growth in a mouse, but that is not surprising, since out of 30,000 tame mice examined by the Cancer Research Fund only 12 were found to have malignant new growths.

Jensen's original tumour was an epithelioma growing in a white mouse. Introduced into other mice, it yielded at first 30 to 60 per cent. of successful transplantations, and it has proved to be one of the most readily transmissible of all tumours hitherto tested. It is still growing, like a pure culture of bacteria, in various laboratories on the Continent of Europe, in England, and in America, the medium on which it thrives being successive generations of mice. In its duration of life (three and a-half years) it has already exceeded the natural term of life of a mouse, and in bulk it has already exceeded that of many thousands of mice. This great power and persistence of growth is paralleled only by the natural propagation of successive generations of mice, and indicates an enormous potential vitality in the cells of the new growth, a vitality comparable to that which secures the continuance of the race. Nor is this an isolated phenomenon. The production of tissue by transplantation of other cancers of mice may proceed no less rapidly.

Jensen made so careful and accurate a study of the conditions of successful transplantation and of the nature of the process that his results have been abundantly confirmed, notably by the Cancer Research Fund. He found that the cells of the new growth could be isolated from the body for a considerable time without losing the power of originating a fresh tumour. When kept in a sterile condition on ice the cancer cells could still give rise to a new growth even after 18 days, whereas an exposure of less than 48 hours to the body temperature rendered all inoculations abortive. "The tumour received by the cancer Research Fund from Professor Jensen was forwarded by post from Copenhagen under sterile precautions and used for inoculation on the fifth day after it had left Copenhagen." (First Scientific Report, p. 14.) These facts illustrate from another point of view the remarkable vitality with which the cells of the new growth are endowed.

In their general characters such transplanted growths resemble very closely the secondary (metastatic) disseminations naturally occurring in the course of many malignant tumours. The constituent cells of each are the direct descendants of the cells of the primary growth. In the case of epithelial growths which alone have been transmitted, the stroma is variable in amount and is produced by the reaction of the invaded tissue. These facts are demonstrable in conditions of natural metastases also, as in the development of embolic foci in the liver. Throughout the longest series of sub-inoculations yet attained each successive tumour has been composed of cells structurally identical with those of the original growth.

The transmissibility of new growths from mice is conditioned to a remarkable extent by racial distinctions among the mice inoculated. Thus, a cancer originally growing in a German mouse meets a subtle antagonism when introduced into an English or into a French mouse, and gives a very low percentage of successes; but, as it becomes accustomed to the new race, the percentage of successes rises and may ultimately equal that attained by direct inoculation of the original growth into German mice. Such specific distinctions between different races of the same species reveal the possibility of a reaction even more subtle than that elicited by the specific precipitins which can distinguish the corresponding albuminous molecules of different species of animals but not of different races within the same species.

When introduced into other mice of the same race, the new growth appears to be independent of such factors as the age or sex of the mice inoculated, and the frequently high percentage of successes contrasts very strikingly with the relative infrequency of primary new growths in the same animals. The conditions required for the successful transplantation of a new growth cannot therefore be identical with those necessary to its primary origin, a fact which indicates that in becoming a new growth the cells have acquired potentialities which enable them to continue growing in circumstances inimical to their original development.

Phenomena of Cell-Division exhibited by Pathological New Growths and their Significance.

Some of the most significant of recent observations on tumour growth relate to the phenomena of cell-division. In order that I may be better able to make myself intelligible, allow me to recall to you the main features of the process as it occurs in healthy tissues. As a rare and exceptional occurrence a cell may divide by a process of amitosis, or direct division, in which the nucleus becomes simply constricted, and separates into two parts, the cell likewise becoming constricted and later separating into two cells, each containing a portion of the original nucleus. This simple mode of bi-partition is limited to such highly specialised or degenerating cells as are found in glandular epithelium or temporary embryonic envelopes. (Wilson.)

The cell-divisions most characteristic of the development of animal and vegetable tissues are exceedingly complicated and constitute the process of indirect division, or mitosis, of which only the briefest outline can be given. Here the nucleus undergoes elaborate preliminary changes both of a physical and of a chemical nature, the prophases of the mitosis. The chromatin reticulum becomes gradually transformed into a convoluted filament, the spireme, of more intense staining reactions. At first fine and closely interwoven, the filament forms the close spireme ; later it shortens and thickens to form the open spireme ; ultimately it breaks across at intervals, giving rise to separate masses of chromatin, usually in the form of short bent rods, known as the chromosomes. These chromosomes become arranged equatorially upon the threads of a spindle-like structure which has in the meantime made its appearance within the cell. Each chromosome splits lengthwise (metaphase) into two exactly similar fragments which gradually separate (anaphase) along the spindle-threads, so that precisely one-half of each chromosome diverges towards each pole of the spindle. The terminal phase, or telophase, consists of the division of the cell itself in the equatorial plane of the spindle, so that each daughter-cell contains one of the groups of chromosomes, from which the corresponding daughter-nucleus is reconstructed. The fundamental event in mitosis is the rigid distribution of one-half of each chromosome to each pole of the spindle, since it ensures that each daughter-nucleus shall contain exactly one-half of the chromatin originally present in the mother-nucleus.

From the time that the fertilised ovum first divides, and throughout all the cell-divisions that go to make up the body of the embryo, this type of mitosis is maintained, and may be termed the somatic mitosis. Moreover, the number of chromosomes formed by each nucleus preparatory to division does not alter. It remains constant not only throughout the development of the individual but throughout all the individuals of the same species, and it is invariably an even number. Thus in man, the ox, the guineapig, and the onion the number is said to be 16 ; in the mouse, the salamander, the trout, and the lily it is 24 ; in some nematodes it is as low as 2 or 4, and in some crustaceans as high as 168. (Wilson.)

But not all the cells resulting from repeated segmentation of the fertilised ovum go to make up the body of the new individual. After a certain number of divisions the newly-formed cells are called upon to play different parts. Some go to form the embryo, and by combined somatic divisions build up the body of the adult organism. Others go to form the embryonic envelopes and appendages, and yet others are early set apart as the precursors of the reproductive cells, and become incorporated within the embryo. It is to the cell-divisions met with in the third group that I now invite your attention.

At first the reproductive cells multiply in the same way as do the body cells, but, as they approach maturity, they exhibit types of nuclear division characteristically different from that of the body cells. The critical mitoses that precede the maturation of the sexual elements are known as the reduction divisions, since one of the more obvious of the points of divergence consists of a reduction of the number of chromosomes to exactly one-half of the number characteristic of the somatic mitoses. Of these divisions there are at least two, and in the higher animals only two. the first being distinguished as the heterotype, the second as the homotype mitosis. (Flemming.) In the heterotypical division the reduced chromosomes assume peculiar forms, often appearing as loops, or rings, or tetrads, and their division on the spindle is not longitudinal but transverse. It is needless to enter into further detail. It is sufficient to emphasise the facts that reduction divisions are distinguishable from ordinary somatic divisions, that, in natural circumstances, they appear only in one tissue—the reproductive tissue—and there only at one phase of its development, that preceding the ripening of the sexual cells.

That this phenomenon is in some way not understood, an essential preliminary to the propagation of new individuals is indicated by its almost universal distribution. It has been found in all the higher organisms examined, animals and plants alike, marking the maturation, or a definite stage in the maturation, of the cells set apart for reproduction. In animals at all events, when all the critical mitoses have supervened, the cell is fully prepared for union with a matured cell of opposite sex, and until this union is accomplished no further development can, save in abnormal and exceptional conditions, occur. A new generation is originated by the union of two mature sexual cells or gametes—the spermatozoon and the mature ovum. Each gamete contains within its nucleus half the number of chromosomes that are characteristic of the somatic mitoses of the organism arising from their fusion, and the union of the two gamates restores the full number of chromosomes to the resultant cell—the fertilised ovum—which is the first of the new generation. And throughout all the cell-generations of the new organism the full number of chromosomes will be retained, except in the maturation divisions of its reproductive cells, when they in turn make their final preparations for that union which will introduce the next succeeding generation.

We are now in a position to consider the phenomena of cell-division as they appear in cancer and other pathological new growths. Cytologists have for many years been familiar with the fact that derangements of the mechanism of mitosis are common in cancer cells, and that in tumours of rapid growth the processes of cell-division may exhibit extreme disorder. (Klebs, Hansemann, Galeotti, quoted by Wilson.) Such derangements include asymmetrical mitoses, the chromosomes being unequally distributed to the daughter-nuclei, and multipolar mitoses, in which more than one spindle is formed. Even amitosis, or direct division, is not infrequently met. Similar abnormal mitoses may be artificially induced by the action of irritants or poisons, *e.g.*, in the epidermal cells of salamander by antipyrin, potassium iodide, etc. (Galeotti, quoted by Wilson.)

But it was left to Farmer, Moore, and Walker to discern a certain orderliness in this disorder, and their discovery, communicated to the Royal Society in December, 1903, was as simple as it was significant. They found that at the primary site of origin and within a zone behind the advancing margin of malignant growths, the cells of the tumour were dividing after the manner of the heterotypical mitoses of reproductive tissues. Not only were the chromosomes of the dividing nuclei reduced to a number approximately half that of the somatic divisions, but the resemblance extended to other and often to minute points of detail, including the disposition of the chromosomes in the form of loops, rings, and tetrads, and their transverse division on the spindle. In other words, they demonstrated in the newly-formed cells of primary cancerous growths processes of cell-division which all biological research has shown to be characteristic of the maturation, or of a definite step in the maturation, of the reproductive cells preparatory to conjugation.

Endorsed by the high authority of Professor Farmer and his colleagues, the essential similarity of cancerous tissue, at a certain stage of the primary new growth, to reproductive tissue is a fact of the utmost moment in relation to tumour growth. The attainment of the critical mitoses indicates that the cell has entered upon the terminal phase of its existence as a cell of the old generation, and that it is now ready to initiate a fresh life cycle, a new growth of cells, an independent organism. It does not indicate that a new generation of cells has yet arisen.

A further significant resemblance between the cells of cancerous and those of reproductive (gametogenic) tissues has recently been described by the same observers. In cancer cells there are frequently encountered clear vesicular bodies containing small deeply staining granules, but their nature has long been an enigma. Occasionally they have been described as some form of protozoon parasite whose presence stimulates the cell to undue proliferation and is the excitory factor in the ætiology of tumour growth. The presence of such cell-inclusions has formed the basis of many hypotheses regarding the parasitic origin of cancer. The parallel raised by Professor Farmer and his colleagues suggests a wholly novel solution. They point out that in the final metamorphoses of the spermatozoon in the vertebrate class of animals, a vesicular body, the archoplasmic vesicle, containing one or more darkly staining granules, is developed alongside the nucleus, and may attain such a size as to indent and deform the nucleus. The vesicle with its contents ultimately persists as the so-called "cephalic cap" of the spermatozoon. This phenomenon is a conspicuous and, so far as is known, a constant characteristic of spermatogenesis in the vertebrata, and is known to have an even wider distribution. In its general appearance the archoplasmic vesicle strikingly resembles the vesicular inclusions of cancer cells, and, as these authors conclude, "it is not, perhaps, accidental that, just as in the case of nuclear divisions, so also in the cellular inclusions, a parallelism between the cells of reproductive tissues and those of cancerous growths should be found to exist." But they do not on this account regard cancer cells as identical with sexual cells.

Of the many fresh observations for which Drs. Bashford and Murray, of the Imperial Cancer Research Fund, are responsible, the majority deal with the nature and distribution of the mitoses in cancer cells. The work of Jensen and of Borrel on the transmissibility of cancer in mice, and that of Farmer, Moore and Walker on the resemblances between certain cells of cancer and those of reproductive tissues, provided an opening of which they were not slow to avail themselves. While emphasising the difficulties that attend the interpretation of the numerous forms of abnormal mitoses in cancer cells, they showed that heterotypical forms occurred not only in cancers of human origin, but also in those of lower animals, including such widely divergent types as the horse, cow, dog, cat, mouse and trout; that, in fact, the resemblance of cancer cells at a certain stage in their life-history to reproductive cells approaching maturation is a phenomenon inferentially present in all cancers of vertebrate animals.

While thus confirming and extending the observations of Professor Farmer and his colleagues, they indicate other significant phenomena. I understand that, in their experience, somatic types of mitoses in which the nuclear divisions exhibit the full, unreduced number of chromosomes are in fully developed tumours more common than reduced divisions, and that, whatever be the age and extent of the cancer, ordinary somatic mitoses are almost invariably present at certain stages and in certain conditions of growth. It is thus that the cells multiply at the advancing margins of malignant growths, whether primary or secondary, and thus that they multiply when, detached from the tumour mass, they undergo the initial proliferation that starts a natural metastasis or an artificial transplantation. Not only, therefore, does the heterotype and post-heterotype tissue form only a small proportion of any extensive new growth, but the cells which are youngest in time and presumably oldest in descent almost invariably exhibit somatic mitoses. Once the reducing divisions have appeared in reproductive tissues, the cells that are youngest in time and oldest in descent are in animals represented only by the mature and maturing sexual cells, and in animals and in plants alike are known to multiply only by mitoses in which the number of chromosomes is reduced by one half. Not all the cells of cancerous growths can, therefore, be regarded as comparable to reproductive cells. After a time there must intervene some circumstance which restores the somatic mitoses, and, apart from parthenogenetic development in which the ovum is fertilised by one of the polar bodies, there is only one event which is known to have this effect.

It is, as we have already seen, the conjugation of two cells, already prepared for union by a sequence of reducing divisions, that restores the full number of chromosomes to the resultant cell, and originates a new generation. This phenomenon, too, has been described (Bashford and Murray). In transplanted cancers of mice nuclei are found staining more darkly than usual and drawn out into blunt processes as if amœboid. Frequently one of these processes becomes closely applied to an adjacent cell wall. Occasionally the nucleus of the cell may be seen in contact with that of an adjacent cell, and apparently continuous with it. So far as I am aware, this conjugation of resting nuclei has been observed only at certain stages in the growth and development of transplanted tumours in mice. Though it has not yet been observed at the primary site of cancer, the reports of the Cancer Research Fund insist on the view that some circumstance equivalent to conjugation is both requisite and adequate to explain the salient phenomena of the growth, as distinct from the origin, of cancer. It is argued that only a new generation of cells, constituting in all essestial respects a new organism, could be endowed with that independent and autonomous growth characteristic of a neoplasm.

Both Professor Farmer and Dr. Bashford draw a comparison between the intercurrent relations of certain cell-generations in plants and the relation of neoplasia to an animal organism. I propose rather to emphasise a relation between recurrent cell-generations in animals which constitutes a still closer analogy. In marsupials, and to a greater extent in the higher mammals, the new generation originating in the fertilised ovum is for a time definitely parasitic upon the old generation—the maternal organism—and the relation of the fœtal chorionic epithelium to the maternal decidua is essentially that of a neoplasm of restricted malignancy so far as local infiltration and independence of growth is concerned. The chorionic epithelium is already a new generation and already parasitic in relation to the maternal organism, but its growth is limited and its natural term of life restricted to the gestation period of the species. When it becomes cancerous, it is peculiar among cancers in being one generation further removed from the organism in which it grows, that is altogether two generations removed if the cancer itself represents a new generation, and though embryonic in relation to other tissues, it is intrinsically senescent or decadent.

The new generation—neoplastic and embryonic alike—grows independently of the requirements of the parent organism, but is at the same time wholly dependent on the parent for its nutrition. In this relation of mutual dependence and independence no distinction whatever can be drawn between the new growth of a tumour and the new growth of a mammalian embryo. Where these two types of new growth fundamentally differ is in the regulated and orderly growth of the embryo and its envelopes as opposed to the unregulated and disorderly growth of the tumour. Of this difference no explanation has been advanced. The origin of a cancer from the conjugation of cells would be sufficient to explain its independence in the sense above defined, but inadequate to explain its autonomy. A new organism with laws of growth of its own is an entity unknown in the whole range of normal biological development. Every new generation has most rigidly impressed upon it the laws of growth to which its parents have conformed, only minor variations being permitted. But in the development of a cancer we find the unprecedented phenomenon of a new generation of cells growing independently of, and often at variance with, the laws that regulate the growth of the parent tissue.

Recent observations in biological science have indicated a unit of living matter beyond the cell, beyond the chromosome—a unit consisting of the chromatin granule (chromomere). Boveri and Brauer (quoted by E. B. Wilson) regard the splitting of the chromosomes as an independent reproductive act of the chromatin. "In my opinion," adds Brauer, "the chromosomes are not independent individuals but only groups of numberless minute chromatin granules which alone have the value of individuals"; and Wilson endorses this opinion in the words, "These observations certainly lend strong support to the view that the chromatin is to be regarded as a morphological aggregate—as a congeries or colony of self-propagating elementary organisms capable of assimilation, growth, and division." (P. 114.) The chromatin forms the hereditary basis by which the processes of growth and differentiation are controlled, and from which they receive the specific stamp of the race (E. B. Wilson), and the accurate subdivision of the chromatin in mitosis is commonly regarded as the mechanism by which genetic continuity and consistency is maintained. In the normal development of the embryo an abnormal mitosis is rare, whereas in neoplasia, and particularly in malignant forms of rapid growth, pathological mitoses are abundant, and may indeed be so frequent as altogether to obscure the nature of the nuclear divisions. While I am fully aware that the significance of fertilisation and mitosis is one of the vexed questions in biology, it may not be unreasonable to correlate the regulated growth of embryonic tissue with the accurate subdivision of chromosomes and the unregulated growth of cancerous tissue with the frequent irregularities in chromatin distribution.

So far as they have been observed, the mitoses in transplanted growths exhibit no abnormality such as would cause an unequal subdivision of chromatin even at the periods of gametogenic activity, and, further, the successive new broods of cancer cells show no deviation from the structure of the original brood throughout the longest period of observation yet attained, and appear to be subject to precisely similar laws of growth. Deviation in structure to a slight degree, and liberation from the original restrictions of growth to a great degree, probably therefore depend on the extent of the uneven distributions of chromatin attendant on the birth of the primary generations.

The Relation of Neoplasia to Senescence of Tissue.

The well-known fact that the liability to malignant new growth increases with the lapse of years, the so-called "age-incidence" of cancer, has acquired a fresh significance in the light of recent work. It is commonly stated that sarcomata are more frequent in the early years of life, while cancers are more frequent in the later. It is interesting to note that the recent statistical report of the Imperial Cancer Research Fund indicates that sarcomata, like cancers, increase in frequency as life advances. In my own experience I have been impressed with the fact that cancers form a much larger proportion of the malignant new growths occurring in young persons and even in children than is commonly supposed. It appears, therefore, that while either of the two main types of malignant new growth may occur in the young, yet the frequency of both increases with advancing years.

If this phenomenon be further analysed, it is found that the increase does not uniformly progress. Cancers of the stomach, for example, appear and attain a maximum frequency earlier than cancers of the skin, cancers of the uterus and mamma are more frequent towards the decline of reproductive activity than in the later years of life, and cancers of chorionic epithelium closely follow the appearance of that epithelium. It is not so much, therefore, the age of the individual in whom it occurs as the age of the tissue in which it arises that determines the maximum incidence of cancer. Even as regards the tissue, it is not, strictly speaking, its age but its senescence that is the important predisposing factor. Tissues appear to be most liable to neoplasia when, having attained maturity, they enter upon the phase of decadence, or involution, and this phase is reached by different tissues at different periods in the life of the organism. Moreover, the same tissue (*e.g.*, mamma, uterus) may become effete at different periods in the life histories of different animals, and the age-incidence of cancer correspondingly varies. This is well illustrated by Professor Woods Hutchinson, who, in his "Studies in Human and Comparative Pathology," correlates the relative infrequency of mammary and uterine cancers in the lower animals with the fact that these organs remain actively functional nearly to the end of life; in other words, that the lower animals do not outlive these organs to the same relative extent as does the human subject. The reports of the Imperial Cancer Research Fund also insist on the importance of the "age-incidence" in the ætiology of cancer, and emphasise the fact that the same relation of cancer to decadence of tissue obtains in man and in other animals, though in the latter, with their shorter tenure of life, the period of relative immunity is correspondingly shortened. The widely recognised influence of irritation and of injury in predisposing to tumour growth is conceivably and probably operative only in so far as it accelerates senescence of tissue.

The relative infrequency of new growths in animals other than man is probably due to various causes. If their brief tenure of life shortens the period of comparative immunity, still more does it abbreviate the period of maximum liability, and I am not aware that an average growth of cancer becomes more rapid in short-lived animals. Further reasons for this difference may be found in the facts that the habits of animals do not predispose so frequently as in man to premature senescence of tissue, and that organs, which in the human subject undergo involution many years before the natural term of life, in animals may remain functional to the end. And particularly in the case of wild animals in natural conditions is it true that those approaching decrepitude are either killed off or die of starvation. The important point is, not that new growths are less frequent in animals than in man, but that a consideration of the causes of this relative infrequency serves only to emphasise the significance of tissue senescence as a factor in the origin of new growths.

Following out this relation of the incidence of neoplasia to the age limit of tissue activity, Dr. Bashford and his colleagues were led to a remarkable observation. The animal in which transplantation of tumours from one individual to another has been most successfully effected is the mouse, whose natural term of life is about three years. Within this brief compass there are condensed the vital activities which in man may occupy more than half a century, and the processes are correspondingly shortened. Thus gestation in the mouse is completed in three weeks, while in man it occupies nine months. But new growths from mice had been propagated through generations of other mice over a period far exceeding the average duration of life in mice. It was natural, then, to inquire how the new growth came to be endowed with this apparently limitless power of growth without deviation from its original structure. A systematic examination of such transplanted cancers revealed the discovery that the growth was not continuous but interrupted, that at periodic intervals there appeared a number of associated phenomena, including heterotypical mitoses and nuclear conjugations. The onset of these phenomena is related, I understand, not to the age of the animal or to the duration of the tumour growth within it, but solely to the number of cell generations of new growth that have intervened between the last preceding heterotypical mitoses, that is, in the strictest sense, to the age of the new growth. Just as mice after a few years would become extinct unless new individuals were generated by the union of reproductive cells, so apparently a maturation of gametes and their conjugation becomes at recurrent and definite intervals of time essential to the propagation of the cancer. This, if it can be substantiated, is the strongest argument yet adduced in support of the hypothesis that a new growth is essentially a new generation of cells arising after the manner of a new individual of the species. Nevertheless, it raises fresh difficulties.

That the senescence of the cells of the new growth should be the only apparent factor in determining the whole sequence of these phenomena in transplanted growths is altogether remarkable. Consider for one moment what it means. There is abundant evidence that reducing divisions in non-reproductive tisues are not necessarily indicative of malignant new growth. They have been encountered not only in benign tumours but also in proliferations of tissue of an inflammatory or irritative nature. Moreover, they may not be observed in some new growths of an undeniably malignant type. So far from their presence being a criterion of malignancy, it is not even a criterion of a new growth, nor does a new growth inevitably follow upon their appearance in a tissue. All that they signify is that the tissue is so far prepared for the initiation of a new growth that certain of its cells have in some way been induced to acquire the characters of reproductive cells undergoing maturation. Granted, then, that the senescence of the tissue, naturally or artificially produced, is adequate to determine the onset of the reducing divisions, nevertheless in the primary growth of a cancer it cannot be the only ætiological factor, since not every obsolete tissue gives rise to a new growth, since, even when maturation divisions have supervened, the tissue does not necessarily undergo neoplasia. Presumably the additional factor is some form of cell conjugation, and this in turn requires some stimulus not invariably present even when the conditions as to senescence of tissue and maturation of gametes has been fulfilled.

Not all cancers can be successfully transplanted ; but, if I interpret the observations aright, a successful transplantation does not depend upon the immediate initiation of a new generation of cancer cells in the new animal. I understand that the initial proliferation of a transplanted growth consists of cell generations continuous with the preceding cell generations, and that once the cancer cells have started to grow in a new animal they have never failed to continue to grow in that animal. Presumably, therefore, a transplanted cancer has never failed to propagate new generations of cancer cells when it approaches the age limit of its growth. There may be a failure to infect a new animal, but apparently never a failure to propagate a new brood of cancer cells, whatever be the age or sex or other condition of the animal in which the cancer is growing. Why the origination of the secondary generation in transplanted cancer should be independent of that infrequent conjunction of conditions required to start the primary generation is a problem that awaits solution.

On the hypothesis that a new growth consists of a new generation of cells, it is not easy to understand why it should so infrequently follow upon the primary appearance of reducing divisions in somatic tissues, and so inevitably follow the recurrence of the reducing divisions in transplanted growths, whereas on the view that a new growth is analogous to a mass of reproductive (gametoid) tissue, the difficulty disappears. Once the primary differentiation from somatic to reproductive (gametoid) tissue has been effected, then subsequent maturation of the gametoid tissue might be expected to recur at periodic intervals in transplanted masses, whether in the same or in other individuals, and the infrequency of a spreading new growth as a result of the primary differentiation presents no difficulty in view of the well-known and often extreme difference in cell-vitality.

Professor Farmer and his colleagues had noted the occurrence of somatic mitoses in the proliferating cells of the advancing margin, but regarded them, as doubtless they would regard similarly dividing cancer cells elsewhere, not as the descendants but as the precursors of the cells undergoing reducing divisions. Until it has been shown that the conjugation of resting nuclei is a constant phenomenon at certain stages of tumour growth, it is not possible to prove that the somatically dividing cells are the products of the union of gametes. The data accumulated by the Imperial Research Fund on the recurrence of appearances resembling conjugation in transplanted tumours of mice affords a certain measure of presumptive evidence in favour of both views, though the hypothesis of the origin of cancer as a new generation is certainly more consistent with other known facts of tumour growth. It must be admitted, however, that the phenomena described by Bashford and Murray as effective nuclear conjugations are capable of bearing other interpretations, notably that of imperfect and abnormal forms of division, or merely that of abortive conjugations. It is undoubtedly a further objection that these reputedly effective nuclear conjugations occur between gametes matured not only in the same organism, but side by side in the same tissue—a circumstance which demands the assumption of a phylogenetic reversion to an extent unparalleled in biology.

The gametogenic tissue of animals does resemble a new growth in so far as its cells ultimately form highly independent individuals—independent of the needs of the organism and independent of each other. Moreover, although their growth is not unregulated and aberrant, as in cancer, it is, during the period of reproductive activity, unceasing and practically unlimited. If a similar twofold independence and unlimited growth could even for a time be acquired by a group of somatic cells, the product would not greatly differ from a cancer with a limited tenure of life. And, if it be objected that the life of a cancer may, so far as we know, be unlimited, it must be borne in mind that a patient may outlive a new growth and not rarely does outlive the less malignant forms presumably endowed with a smaller measure of vitality.

In this relation I should like to quote the views of that eminent biologist, Professor E. B. Wilson, who says: "As far as we can see from an *a priori* point of view, there is no reason why, barring accident, cell-division should not follow cell-division in endless succession in the stream of life. It is possible, indeed probable, that such may be the fact in some of the lower and simpler forms of life where no form of sexual reproduction is known to occur. In the vast majority of living forms, however, the series of cell-divisions tend to run in cycles in each of which the energy of division comes to an end and is restored only by an admixture of living matter derived from another cell" (fertilisation); and he adduces evidence that even in unicellular animals, infusorians, the processes of growth and division sooner or later come to an end, undergoing a natural senescence, which can be counteracted only by conjugation. He concludes: "That fertilisation in higher plants and animals does, in fact, incite division and growth is a matter of undisputed observation. We know, however, that in parthenogenesis the egg may develop without fertilisation, and we do not know whether the tendency to senescence and the need for fertilisation are primary attributes of living matter" (pp. 178, 179). It is possible to find in these quotations some measure of support for each of the hypotheses under discussion. It is only fair to point out, however, that neither is regarded by its authors as more than a tentative working hypothesis to be discarded when fresh discoveries have revealed its insufficiency, but meantime to be put to its legitimate use as a means of co-ordinating known facts and as a guide to future research.

In this relation also I would again emphasise the fact that the cells which ultimately form the reproductive tissue are of the same generation as those which go to form the embryonic envelopes (trophoblast) and those which go to form the body of the mammalian organism. They are all descendants of the fertilised ovum, derived from it by repeated mitotic division, and for a time indistinguishable one from another. It is perhaps not too much to assume that cells so intimately related in origin, however much they may ultimately differ in structure and in function, should retain certain tendencies in common, and in particular that, just as reproductive cells approaching maturity make preparations of a very special kind for conjugation with other specially prepared cells, so something of the same tendency has descended to the non-reproductive cells also. It is not inconceivable that such an inherited trait should be evidenced only when the other vital activities of the cells begin to cease, when the onset of senescence reveals the need for a further renewal of energy. This is not inconsistent with the fact that the higher the differentiation of the tissue of origin, the more restricted is the differentiation of its progeny in the form of a new growth or otherwise.

The occasional occurrence of heterotypical mitoses in senescent tissues, with or without the subsequent conjugation of matured gametes, might thus be regarded as the fulfilment of a natural law, as the ultimate realisation of a potentiality latent throughout the greater part of the life history of the cell, being obscured by other, and for the time being more urgent, demands on its vital energy. It is not impossible that tumour growth will prove to be a natural phenomenon determined by a definite concatenation of natural circumstances of which one is the senescence of the tissue, and that the nature and origin of cancer will be essentially a problem of biology, and only accidentally a problem of pathology.

The Relation of Chemical Conditions to Tumour Growth.

The intimate relation of chemical to biological processes has been demonstrated most strikingly by Loeb, whose results have been abundantly confirmed by subsequent research. It may be accepted as proven that the development and growth of living cells may be profoundly modified by slight chemical alteration in their environment. Perhaps the most remarkable of all these observations relate to the development of the unfertilised ova of certain echinoderms, notably sea urchins and starfish. In these animals the sexes are separate, and development of a new organism naturally occurs only by the union of two mature sexual cells, suspended in sea water. Loeb, however, by minor, though definite, alterations in the saline constituents of the water, was successful in causing the unfertilised ova to segment and develop just as if they had been fertilised by the spermatozoon, and in suitable circumstances the segmenting ova could be induced to form actively swimming normal larvæ. Not only in the echinoderms, but also in annelids (segmented worms), in which also the sexes are separate, an artificial parthenogenesis could be similarly induced, so that free swimming larvæ were developed from unfertilised eggs. In this artificial parthenogenesis only one polar body is given off, so that there is no reduction in the number of chromosomes; where there is a reduction the normal number soon becomes restored by a process of auto-regulation. (Delage.) I am indebted to Professor Haswell for this reference. That it should be possible by a comparatively slight variation of chemical conditions to induce in the ova of sexually developed animals a reversion to a non-sexual form of development (parthenogenesis) is not without possible significance in relation to neoplasia.

These phenomena are not merely scientific freaks. They acquire a new importance in view of the work of Professor Moore and his colleagues on the reaction of the gastric secretions in cases of malignant disease. As these authors indicate, it was one of the few definite facts known about cancer that when the stomach was the seat of the new growth, the secretion of free hydrochloric acid was nearly always in abeyance, and it was also known that this might occur even when the growth was of small dimensions and had not produced any other noticeable alteration in the stomach. I do not propose to discuss the various suggestions that have been advanced in explanation of this phenomenon, nor the observations made on the effect of new growths in different positions in the stomach, nor the occurrence of diminished acidity in other morbid conditions.

It occurred to Professor Moore and his colleagues to investigate whether this phenomenon was independent of the site of the cancer, and they found—I give the findings in their own words—that "the absence of free hydrochloric acid in cancer of the stomach is not due to any local action in that organ, for hydrochloric acid is absent or greatly reduced in amount whatever may be the situation in the body of the malignant growth. The amount of free hydrochloric acid present in the stomach contents was determined in 17 cases of malignant disease situated in different regions, such as the uterus, mamma, prostate, rectum, tongue, cheek and mouth, and in about two-thirds of the cases the free hydrochloric acid was found to be entirely absent, while in the remaining cases the amount found was much below the normal, being reduced to a mere trace in all except one case, where it reached about one-fifth of the average amount obtained in control determinations carried out upon ourselves." Since the phenomenon is independent of any local action in the stomach, and since, moreover, it is so pronounced and constant, so far, at least, as the limited number of observations recorded can justify such a statement, it certainly suggests a profound chemical alteration in the body fluids, and, as the authors point out, this change may be a common cause of the new growth and of the absence of the acid, or it may be a result of the growth and the cause of the absence of the acid. The cause of the absence of the acid, however, is not yet determined. It may be that the oxyntic cells are atrophied, or inhibited by some toxic substance in the blood, and the presence of a ferment (malignin) within cancer cells, and liberated by their disintegration, has been described. (Petry and Blumenthal.) Nevertheless, it is more probable that the explanation must be sought in the chemical constitution of the blood itself, and that the elimination or arrest of free hydrochloric acid is an indication "through the mechanism of the oxyntic cells" that the essential acidity of the blood is decreased and its essential alkalinity increased. Dr. G. E. Rennie has suggested that an increased alkalinity of the blood plasma might be determined by some disturbance in the nervous control of metabolism such as is indicated in the contrasted condition of acidosis and diabetes. These facts and considerations further illustrate the extended scope of modern pathology and its relation to, and foundations in, biology, chemistry, and physics. I much regret that time does not permit me to discuss other recent contributions, notably those of Ribbert, of Beard, and of the many cancer research institutes.

Indications for the Treatment of New Growths.

When the cells of one animal are repeatedly introduced within a second animal of a different species, it frequently happens that substances antagonistic to these cells are developed in the body of the inoculated animal. If now some of the blood serum from the second animal be injected into an animal of the same species as that from which the cells were originally taken, the serum may exert a destructive action on these cells. It is upon this general biological law governing the ultimate reactions of living cells to alien albuminous molecules that the principles of immunisation against bacterial infection are based.

Whether we regard a tumour as a new generation of cells or not, the fact remains that it constitutes an invasion of the organism by a brood of independent and hostile cells, and in the sense in which we have defined the process it is equivalent to an infection. It seems not unreasonable to hope that substances antagonistic to the cells of a new growth could be developed in the blood of an otherwise suitable alien animal by injections of the tumour cells as in the process of immunisation, and that the blood serum could then be used with effect either to inhibit or to destroy further growths of the same tumour or growths of other similar tumours. The extremely restricted specificity of the action of living tissues to cancer cells, so that evidence of a difference is obtained among closely related cancer cells from the same species (Scientific Reports No. 2, part ii., p. 33) indicates a possible difficulty in the preparation of a serum antagonistic to other new growths of similar structure to that used in its preparation, though such distinction might not be apparent when injections were made into alien animals. Already considerable attention has been paid to this possible development, but as yet no certainty has been attained.

The remarkable agencies revealed within the last few years by physical science have been impressed into the service of medicine, and their influence on tumour growth is now on its trial. The effect of radium on transplanted new growths of mice has been investigated by the Cancer Research Fund, and, since the life history of these tumours has been under continuous observation for several years, the results obtained may be regarded as independent of the numerous sources of error which discount the value of merely clinical experience. Moreover, as the experimental results corroborate the earlier clinical observations, a considerable body of evidence has now accumulated in support of the fact that radio-active bodies and solutions do in a most surprising and apparently capricious manner cause the disappearance of some tumour growths, though not of all.

Pieces of radio-active lead, solutions of radium-emanation, and sterile radio-active saline solutions were used. The duration of each exposure varied from three to thirty minutes, and was repeated for the same length of time on the following days. Within the second week after the first exposure four of the tumours began to diminish in size, while others continued to grow. There was no noticeable relation between the length of exposure and the effect on the tumour. The influence of radium in producing absorption appeared to be directed to the connective tissue elements which underwent marked proliferation and split up the tumour into smaller islets of cells. Even at this stage the tumour cells appeared healthy, but within a few days they degenerated, then died, then disappeared, probably owing to cicatricial contraction of the fibrous overgrowth. These observations confirm the previous work of Exner, and controvert the more common assumption that radium exercises a selective action on the tumour cells.

The Röntgen rays (X-rays) have also been employed in the treatment of cancer, and some measure of success has been recorded in superficial forms. I am not aware, however, that their influence has been submitted to any such rigorous test as that undertaken for radium. It is known through the extensive researches of Heinecke (quoted in the Second Scientific Report, part ii., p. 61) that exposure to the Röntgen rays or to radium produces alterations in the spleen and lymphatic glands, and several accounts have recently appeared of the successful treatment by X-rays of leucocythæmia—a condition recognised to be closely related to, if not identical with, neoplasia. Only last month Dr. Reissmann, of Adelaide, published an illustrative case.

I have grievously failed if I have raised any false hopes that the treatment of cancer by any means other than actual removal is yet practicable. It is obvious that to be effective the removal must be early, free and careful, and the lamentable disregard of one or other of these precautions is responsible for many disasters. Patients should be encouraged to seek advice in the early stages of suspicious tumours, and the surgeon should remember that these are not cases for expectant treatment nor for conservative surgery. I do not advocate wholesale butchery, but I do advocate the common-sense application of known facts and scientific methods to the surgical treatment of tumour growth. In these days there is no reason why every doubtful tumour should not be submitted to a microscopic examination. If you are still in doubt whether the condition is inflammatory or malignant, give the patient the benefit of the doubt and remove the suspicious mass. Remember that prolonged irritation induces senescence of tissue and predisposes to neoplasia. If you are in doubt whether the growth is malignant or benign, remember that all are potentially malignant, that the difference is one of degree not of kind, and do not hesitate to remove it. If you are satisfied that a malignant growth has really started, bear in mind the ease and rapidity with which secondary infections may occur, and do not risk losing a life for the sake of saving a limb. The knife should never be within an inch of the new growth, and, where possible, many inches should intervene. I do not need to warn this audience against those secret nostrums which, born of cupidity and nurtured in credulity, if they do not aggravate by irritation, serve only to delude the patient into waiting until perchance the time for operative interference has passed.

ADDENDUM.

Since this address was delivered, I have been repeatedly asked whether there is any foundation for the not uncommon belief or suspicion that cancer is contagious or infectious. While I am fully aware of certain recorded instances of the communication of cancer from one person to another (*cancer à deux*) and of the existence of so-called cancer houses and cancer districts, I cannot too strongly emphasise the fact that the difficulties attendant on the artificial transference of new growths sufficiently demonstrate that cancer is neither contagious nor infectious. The hypothesis that cancer is due to the invasion of parasitic microbes is far from being substantiated, and, even if it should later be proved that the phenomena of cancer are initiated by some form of parasite, it does not necessarily follow that cancer is contagious or infectious. On the contrary, it must be admitted that the distribution of the presumptive parasite and its mode of action are wholly dissimilar to those of any known bacterium or protozoon, and that in particular it is not capable of reproducing the disease in other persons after the manner of other morbific agents known or assumed to exist.

ABDOMINAL SYPHILIS.

Presidential Address delivered in the Section of Surgery, Australasian Medical Congress, Adelaide, September, 1905.

By Frederick Dougan Bird, M.B., Ch.M., M.R.C.S. (Eng.), Melbourne.

WHILE appreciating to the limits of my capacity the honour which allows of my presenting myself to you to-day as president of the section of surgery, I am deeply diffident of my ability to interest you in a presidential address, and I can only beg you "gently to hear and kindly to judge" my attempt. On account of the size of the subject and the fact that the various professional annuals do the thing so much better than I can, I have avoided attempting a review of the present surgical position, and have chosen a special subject which has attracted my attention for a good many years. In the abdomen, that portion of the body which shows the surgeon the greatest help in his work, and also possibly his greatest difficulties, and which has a perennial interest of the highest order, I have found the conditions about which I wish to speak to-day.

While syphilis has been made responsible by various authors for most things, from the production of cleft palate and club-foot to the filling of our lunatic asylums, but little has been written in comparison about the manifestations of this disease in the abdomen. Mistakes are so easily made in connection with syphilitic lesions in the abdomen, and these mistakes so generally mean greatly increased risk to the patient from operation, that I need not ask your pardon for endeavouring to elucidate to some extent these conditions from the thin thread of my personal experience. A somewhat systematic method of considering these lesions is the best way of detailing to you what I know from the study of a number of cases.

In returning to the ancient saintly habit of contemplating the navel, I must admit that while I have seen epitheliomatous and tubercular diseases, fæcal and urinary fistulæ, and dermoid developments here, I have not encountered anything that I took to be syphilitic at the umbilicus itself. However, round about the navel I have met with true subcutaneous gummata, the size of small marbles, fairly defined movable growths, slightly tender, which simulated multiple sarcomata closely. They appear just about the level of the waist, and may be due to the dragging of the clothes in the female, which, acting so continuously, amounts to traumatism. Similar, but smaller, subcutaneous gummatous nodules are well known about the female knee, and their position is similarly determined, I believe, by the irritation of the garter. When the breast is voluminous and weighs much upon the upper limit of the corset, subcutaneous gummata may form in like manner along the line of pressure.

Increased experience makes me allow increasing importance in my mind to the influence of traumatism as a localising factor in the production of syphilitic manifestations. These strictly subcutaneous gummata are mainly important from their showing that their owner has the specific virus still in his or her person. A single specimen may be removed to make quite sure by microscopical examination that it is neither one nodule of a sarcomatosis nor an outlying metastasis of an unobtrusive gastric or mammary cancer.

Considering next the parietal wall itself, I have had the good fortune to see a number of tumours (it is hard to call them otherwise) in the parietes due to syphilomatous growth. These could have been divided into cases where the parietes alone was implicated, and cases where underlying structures were infiltrated and by being fixed to the wall where the syphiloma existed formed part of the swelling. The first named are so like sarcomata of the abdominal wall as to surely cause mistake on the part of the surgeon if he is not cognisant of the syphilitic possibilities of the case. And a mistake of the first order it will be if he operates for the removal of the supposed sarcoma, for if the swelling is of any but small size, and it generally has considerable extension, the patient's abdominal wall is grossly injured past repair by the cutting necessary for its removal.

It is very hard to believe that this discoid well-defined lump can possibly be anything but a circumscribed tumour; and unless the knowledge of the patient's past tells us, or the finding of undoubted traces of syphilis elsewhere puts us on the right diagnostic track, no certain view can be taken, and an incision into the growth is necessary for the removal of a portion of the tissue for the microscope. This insuperable difficulty in clinical diagnosis certainly exists in the hard example of parietal gumma, which takes such time as a sarcoma might take to grow, though of a shorter existence than a fibroma; but all the cases I have seen were not so dense and fibroid. These softer ones may grow more rapidly than any sarcoma, and may disappear as rapidly. In one case in particular was I much astonished at the marvellous disappearance of these masses. It was that of a married woman, *æt.* 46, who had several apparently healthy children, had had one miscarriage, and presented no signs of syphilis elsewhere. She came to me slightly jaundiced, with a tender swelling in the gall-bladder region. This swelling was slowly travelling in the direction of the umbilicus in the same manner as an enlarging gall-bladder would. However, the swelling implicated the parietes, and my diagnosis was cholecystitis, with cholangitis and the probable presence of gallstones. Operation showed me infiltration of the parietes, to which were welded on the gall-bladder and a portion of colon. The mistake was easily made by me, as I have seen cases very similar in which gallstones were trying to extrude themselves at the umbilicus.

Though I was now used to recognise these syphilomatous growths, I might have easily failed in diagnosis at operation if it had not been for the peculiar character of the infiltrated rectus muscle, which gave a gritty feel on section. This is a marked characteristic of muscle tissue embarrassed by syphilomatous change. The sensation given to the hand through the knife on section of such a muscle is highly reminiscent of the cutting of beef which has been badly corned, and the appearance, which shows much increase in the stroma of the muscle, suggests, through another sense, the likeness to corned beef. This similarity revealed to me the right diagnosis, which was confirmed by Dr. Mollison's microscopic examination of a portion removed.

Though I did not open into the gall-bladder in this case, bile came through the wound in a few days' time, and continued to flow for several weeks. Now, this lady during her convalescence developed rounded masses in various parts of her abdomen, which masses undoubtedly infiltrated the parietes and deserved the name of phantom tumours, because of their fitful appearance and equally capricious disappearance; they were much softer than the original tumour, and caused me much exercise of mind at first. I would mark one down on Monday, and on Wednesday it would have vanished, a similar tumour developing elsewhere in the abdominal wall. My concern at the first was that I should incise these lumps, but, fortunately, they were too evanescent. All this time the patient was being energetically treated with iodide of potassium and mercurial inunction. This lady regained her health completely in about four months, and, as seems to be the rule in these unusual manifestations of syphilis, no other undoubted evidence of the disease could be obtained.

Another illustrative case was that of a young married woman, who developed a considerable tumour in the gall-bladder region. This was operated on in a country hospital, where the surgeon, a very excellent practitioner, found such a jungle of adhesions that, after some exploration, which did not discover gallstones, he closed the abdomen. The patient recovered wonderfully, the tumour disappearing, all but some thickening beneath the scar. In a few months' time, however, her health failed again, and the tumour returning her doctor sent her down to me. The history of the case and the parietal infiltration constrained me to the right diagnosis, which was confirmed by the removal of a small portion for the microscope. Complete permanent restoration followed drug treatment. The power of exploratory operation by itself to almost effect dispersion of the syphilomatous condition was of great interest to me in this case.

The existence of the syphilomatous process in the tissues does not necessarily interfere with the production of a good scar made for diagnostic or exploratory purposes, as in only one case that I have seen has there been a tendency to weakness of the cicatrix.

It is equally embarrassing when such an agglomeration of syphilomatous material is discovered in the appendical region, as occurred in a case under my care some years ago. The patient, a previously healthy young fellow, had a deranged alimentary canal, and was evidently ill. He drew my attention to pain and tenderness in the right iliac fossa, where I found a swelling such as is often seen in appendicitis, with a good barrier formation. The diagnosis was made, and as the swelling gave no signs of disappearing, at the end of a few days an incision was made into it, but I did not open the peritoneal cavity, as the muscle was in a condition which immediately turned my thoughts to syphilis. The microscope proved that their direction was right, and the patient regained his health, with the evanescence of the tumour under liberal anti-syphilitic medication. In this case the central portion of the tumour was hard and immovable, but the peripheral parts changed in a most perplexing manner. Here, again, no history or vestige of syphilis was to be found. Both these cases suffered much in health with the formation of these strange tumours, while previously to the appearance of these swellings their health had been excellent, although they must have been syphilitic for some considerable time before the evolution of the syphilomatous masses. A deep etiological interest attaches itself to a further consideration of these cases. In a person admittedly syphilitic, though in apparent good health, does some accidental lowering of health cause the formation of these growths ? or is there some localising factor, probably an unregarded traumatism, which determines the agglomeration of small round cells, that in their turn by their morbid metabolism poison the patient, and thus reduce his health ? The latter, I believe, is the true record of the loss of health and strength which is so noticeable in these cases. It is only likely that the vast collection of small infiltrating cells will give rise to strange metabolic results, which are of the nature of a poison, especially when the tumours formed by them may be so wanting in stability in all or part of their diffusion.

These parietal tumours occur not only in adults, but also in infants and children as developments of inherited syphilis. In one case during the time I was treating the father for tertiary syphilis (stenosing the right bronchus), the mother gave birth to a child apparently healthy. In about a fortnight the infant became sickly, and a lump came into existence to the right of its umbilicus. This lump grew rapidly to a large size when compared with the abdomen, and incision with removal of a portion demonstrated the syphilitic nature of the swelling.

Under mercurial treatment the child flourished, but the father died of his disease. Fortunately here, with the undoubted syphilis of the father before me, I avoided the danger of performing an extensive, mutilating and unnecessary operation on the one hand, and the hopelessness of allowing the child to die of what I might have considered rapid sarcoma on the other. The mistake of resorting to a large operation which is not needed is very likely to occur in cases where the tumour is hard and confined to the parietes. Moderate incision into them with the giving of mercury and iodide is the best treatment for these hard parietal tumours, and the cutting for the removal of a portion for the microscope gives a start for the absorption of the tumour Some of the less stable forms are dispersed by mere incision, and it is my opinion that all are more readily disposed of by the performance of an initial incision, which has the added advantage of settling the diagnosis.

The worst treatment is total removal of these tumours, leaving an irremediable gap in the abdominal parietes. Among the many wonderful things we witness in our work, not one, I think, is more startling than the disappearance of these syphilomatous masses of large extent and dense consistence under proper treatment. The likeness to tumour is still more marked when we realise, as I have been able to do, that the central softening so characteristic of syphilis formations is by no means a necessity in these masses. That a single surgeon should meet with the number of cases which have come my way goes to show that these strange syphilomatous swellings are not so uncommon that we can neglect the chance of their being present. From what information I have been able to gather of their frequency, they are more common than sarcoma or fibroma of the abdominal parietes.

There is yet another tumour with which they may be confounded. Myxœdematous deposit when it occurs in the abdominal wall is usually spread out impartially in the subcutaneous tissue, but sometimes it may be consolidated into a discrete lump which forms an undoubted tumour, and then the likeness to syphilomatous swelling is great.

Very small indeed is the amount written about gummata of the abdominal wall, but great is the literature concerning syphilis of the liver, that municipal destructor of the body. That syphilis finds a permanent home in the liver is a very old tale, and although we do not credit it with being the primary seat of syphilis, whence ulcers radiate even to the genitals as Fallopius did, we have large if vague ideas of the importance of syphilitic hepatic disease.

These ideas mainly cluster round the congenital forms, and rightly so, as these largely predominate numerically. It is of the acquired form mainly that I wish to speak. Its fissures and scarrings, its lobulations and deformities are well-known and when seen at operation are of obvious origin, as are the cicatrices left by gummata; but gummata, which have not been absorbed when small, as usually obtains and have attained large size, will give signs before and during operation which are very confusing. The following is a good instance of how mistaken a surgeon may be. A gentleman of the age of 41 (a likely age for gumma of the liver), leading a healthy country life in a district where hydatids are common, consulted me about marked loss of health, strength and weight, and a want of symmetry in his ribs. He had noticed for some months that his right side was decidedly and increasingly more prominent than his left, and that exertion was apt to cause pain over this enlarged region. The rounded smooth swelling, to be easily felt below the ribs, the increase of the liver dulness upwards and its continuity with the evident tumour, decided me to tell the patient that he was suffering from hydatid of the liver. The wasting and the pain on exercise were factors that did not fall well into line in the diagnosis, but I certainly have seen cases of hydatid disease with as much and more pain and some with wasting, though these last are more likely to be cases of multiple omental cysts. Operation was decided on—much more, I admit, to remove the supposed hydatid than the lingering doubts which existed at the back of my mind. Incision showed a large yellowish-white, shiny mass, which even then might be taken for hydatid. However, closer inspection showed that small radiating fibres passed to the liver in many directions from the main mass. The tumour felt solidity itself and was not quite as well defined as a hydatid adventitia is. A trocar inserted in several places discovered no fluid and gave no impression of a cavity. The hole made by its insertion did not alter on its withdrawal, and the conclusion was soon come to that it was a very large gumma.

Gummata, like hydatids, tend to seek the surface of the liver, and very large ones must perforce abut on the periphery. Both prefer the anterior surface rather than the region of the porta. As the gumma reaches the surface a perihepatitis occurs, and this, of course, means pain, which may radiate as in other hepatic conditions to the shoulder tip by way of the phrenic or through to the back by the splanchnic route, but which is most likely to be present in the diseased area and its immediate surroundings. There is no doubt that pain is one of the main symptoms in late syphilitic disease of the liver.

Gummata of small and moderate size seem generally to be absorbed even without the influence of drugs, leaving only a scar at their former site, but one of the size obtaining in the present case acts as a malignant tumour; its morbid metabolism poisons by its products, and it is my opinion that this patient would have died in a very few months from absorption of the juices of this vast collection of loosely organised cells. As it was, iodide and mercury were given with the happiest results, local and general, and during his convalescence the patient remembered what he had previously denied—the existence of a chancre acquired some five years before. It may be noted that a longer period than this as a rule elapses before the occurrence of gumma in the liver.

Really large gummata such as the one present in this case must be rare conditions, but small gummata which cause no symptoms or only slight perihepatitic pains may be, and probably are, common, and we know of their existence only by cicatrices found post-mortem, or peradventure at an operation. Part of the surgeon's *métier* in an exploratory operation in the vicinity of the liver is undoubtedly to feel the space between the liver and diaphragm for adhesions or anything that may break the smooth hepatic contour; but he should use more than his sense of touch: he should inspect with his eyes the surface of the liver, searching for any scarring or markings which may not be raised above or depressed below the surface, but which nevertheless are highly suggestive of syphilis. These cicatrices, clefts, fissures, and furrows, markings and lines are well known as the results of liver syphilis; but I think that attention has not been sufficiently directed to striæ much more delicate than these. They are of a pale, transparent, bluish tint, looking very much as if the liver surface had been traced over with a small paintbrush dipped in weak nitrate of silver solution. They are not dense enough to cause any inequality of the surface either as a ridge or a contrasting depression, and they meander towards the liver edge as rivers in a map to the land's edge. For some years now I always look for these markings in operations, and I have learnt to associate them with syphilis. In cases where syphilis was suspected I have even added an inch or so to my incision (chary as I am of unnecessary length in it) in order to be able to inspect the liver for these markings. They have to be looked for, but I believe when found they are good criteria that the patient is a syphilitic. Again, in syphilitic cases I have several times seen small, calcareous masses in the centre of starred cicatrices. The proportion of importance allowable to syphilis as regards the formation of adhesions between the liver and the diaphragm is difficult to allocate, and involves a consideration of the causal agencies of perihepatitis, but my mind runs syphiliswards when I find adhesions without obvious cause in the dome of the diaphragm connecting it with the liver.

In the case just related there was no question of the tumour being a dilated gallbladder, but a gumma has been mistaken for it, and of course the likeness to secondary malignant disease of the liver is considerable. Primary tumours of the liver are rare, rarer than gummata, so that the possibility of a tumour being a gumma, which is easily removed by medicine, must be taken into earnest consideration before a large and risky operation is attempted in order to remove the growth.

The presence of irritation as localising the deposition of gummatous material is interestingly shown in cases where a growing hydatid adventitia is surrounded by an atmosphere of syphilomatous tissue and is itself similarly infiltrated. The rubbing of the anterior surface of the liver against the ribs may, when the surface is once roughened, constitute by its continuity a traumatism, and account for the preference gummata have for the anterior aspect. Syphilis is apt to exhibit itself in the terminal portions of an artery, a habit well seen in the branching seaweed-like markings on the inner aspect of the cranium, and this terminal endarteritis may furnish in the hepatic artery the initial roughness which is rubbed into actual gumma by the ribs.

Of those strange cases where the liver is covered by a thick and dense envelope of glistening white fibrous nature I cannot speak with any definite knowledge. One would think these cases, whether only part of a general chronic proliferative peritonitis, or poliorromenitis, or separate hepatic conditions, were likely to be of a syphilitic nature ; but I cannot say whether syphilis is the cause, or even one of the causes, of them, or of the somewhat similar condition in the thorax, viz., chronic indurative mediastinitis, or of a combination of these conditions, which is dignified by the name of chronic multiple serositis. There are, however, two other strange conditions—one involving both thorax and abdomen, undoubtedly syphilitic of the acquired form ; the other purely abdominal and, I believe, syphilitic of the congenital form.

Taking the former, we find present a very large area which is blended together into an apparently solid mass, dull on percussion, callous in nature, largely destitute of function and especially wanting in the movement naturally associated with the parts. A heavy, dense cloud of syphilitic tissue has settled down over the parts, entirely and impartially obliterating the salience of the anatomy. Thus the lower half of the lung, the diaphragm, the intercostal muscles, the spleen, the parietes of the abdomen, and any organs near may be obscured and enveloped in this mass. Similar cases of less extent have been operated on as sarcoma, Paquelin's cautery taking the place of the knife, or a hopeless prognosis has been given and the paralysing fog of syphilis allowed to spread. Here is a case the recital of which is typical. A.B., a previously strong man, *æt.* 39, complained of severe pain over most of his left side, with much shortness of breath on even slight exertion; but his cough was what bothered him most, for it racked him continuously. There was no accompaniment of expectoration. He was much wasted, very anæmic, and looked ill. The signs of disease were vested in the painful region, which was all very solid on percussion. Air did not enter the lower half of the left lung. There were no adventitious sounds. The fluorescent screen gave a most interesting as well as a most unusual picture. The transradiant area below the diaphragm on the left side was replaced by dense shadow, which extended upwards through the diaphragm far into the lung. While the centre of this was very dark, the edge of the shadow was not sharply defined, for dark streamers radiated in all directions. The diagnosis lay between huge syphilitic gumma and malignant disease. The exploring needle helped to decide, for its passage in several directions through the part was accomplished without the loss of even a drop of blood, which was very much against the growth being sarcoma, and a beautiful exemplification of the bloodless nature of the central parts of a gumma. The administration of full doses of iodide, in addition to mercurial inunction, rapidly restored the man to health, while the diminishing darkness viewed on the fluorescent screen afforded a most instructive spectacle, and as this syphilitic fog cleared off the movements of the left diaphragm could again be seen.

In the second of the two conditions referred to the syphilitic result had been too long present for drug medication to have much effect, and death ensued in the two cases I have seen. They were wonderfully alike, both young women under 25; in both ascites was present in large amount, and in both the superficial abdominal veins and the veins in the flank were much enlarged. One had jaundice. Both were tapped for ascites several times, and on the abdomen filling up again I was asked to explore. This exploration resulted in the strangest palpation I have experienced. There was a large amount of fluid, and in this the exploring fingers felt the liver and its pedicle and the spleen as if they were plaster models, so firm and unyielding were they. The edge of the liver was rounded, the gall-bladder partook of the general hardness, and the liver was of a dark purple colour, with lighter mottlings and streaks. There was evidently nothing to be done in an operative way, and a post-mortem examination some two months after showed in both cases much narrowing of the inferior vena cava; the walls of the portal vein were densely thickened and its lumen partially occluded by old blood-clot. It was decided by the pathologist that syphilis was responsible for the condition in either case. The disease had been so long in existence and the damage done was so irreparable that iodide and mercury administration could do no good. Wonderful as are the effects of these drugs in promoting the dispersal of syphilomata and gummatous infiltrations, a time in the history of these deposits must come when, if they have not softened, a degree of fibrosis is attained upon which iodide and mercury have but little power.

It is pleasing now to turn to a class of cases in which a correct diagnosis leading to a correct treatment will ensure a speedy remission of symptoms. While syphilis of the liver has been exhaustively treated of by many writers, the manifestations of the disease in the gall-bladder and gall-ducts have had little said of them. It is many years since I became cognisant of what syphilis might do to a gall-bladder. The first revelation was in the case of a previously healthy young woman now wasted, jaundiced, with pain over the gall-bladder region and increased resistance there; the history extending over many months. The gall-bladder at operation was seen to be studded all over with what were apparently carcinomatous nodules, the cystic and common ducts were enlarged and hardened, and there were many adhesions in the portal fissure. Drainage of the gall-bladder was effected; in doing this I took the occasion to remove one of these raised hardened excrescences with a gristly feeling, and Dr. Mollison informed me that it was a gummatous mass. The gall-bladder shows beautifully how tissues along a definitely marked arterial tract may be picked out by syphilis, which leaves the neighbourhood free at all events of macroscopical disease. Thus evidences of syphilis may be obviously scattered along the cystic artery and its branches, while adjoining tissues owning another arterial supply show no manifestations at all. Here is quite another form of syphilis of the gall-bladder in which other parts were implicated. A lady, *æt.* 39, began to feel epigastric pain and discomfort about a year before I was asked to operate on her. Her illness gradually evolved into one simulating very closely gallstone in the common duct. The attacks of pain were typical; her jaundice, which was after a time always present, became much deeper during the later stages of the attack, which lasted several days. She would then make a partial recovery, which was again terminated by an attack. The pain was very great and was relieved to some extent by vomiting. During the period of comparative freedom from pain she had tenderness in the epigastrium and over the gall-bladder, and once her medical attendant believed that he could feel a distended gall-bladder. She had lost much weight and was evidently losing ground after each attack. On opening the abdomen I found a yellowish-white, much thickened gall-bladder fundus uncovered by the liver edge. It was unusually firmly connected with the liver. The thickening extended to the cystic duct and the common duct, in which, however, no stone could be felt. There were a good many adhesions about the portal fissure. The ducts were hard and dense to the feel, like a lead pencil. Cholecystotomy was performed and a small portion of gall-bladder wall was removed for the microscope, by means of which Dr. Mollison found marked evidences of endarteritis. Bile percolated slowly through the wound for a fortnight. I could not help remarking that the changes in the gall-bladder were mainly in the outer and middle coats and not in the mucous membrane. The gall-bladder was not dirty in its inside, as a first inspection would have made one expect. There were no stones or débris at all. During the later stages of the operation I came to the expressed conclusion that the case was syphilitic. She improved much with mercurial inunction and iodide, getting fat and well, although her jaundice took a long time to pass off. Now comes the interesting part of her history. On leaving the care of her own medical man she went to a distant part of the State and gave up her treatment after about six weeks. Gradually the jaundice came back, the attacks of pain reinstated themselves with much regularity every three weeks, and in three months' time she was nearly as bad as ever. She then came under my care in Melbourne, and a vigorous rubbing in of ung. hydrargyri twice a day with large doses of pot. iod. by the rectum have restored her to apparent health. I have spoken about the duct feeling like a portion of lead pencil; it is, in my mind, that this is a distinctive syphilitic phenomenon. I have met with it in several cases which I believe to be syphilitic and which were improved and seemingly cured by antisyphilitic treatment, but as I had no microscopical confirmation of their nature I do not wish to press their acceptance. It is difficult to be sure how jaundice is brought about in such a case as I describe; it may be due to one or more of the following conditions—gumma pressing on and involving the common duct, adhesions kinking the common duct, syphilitic infiltration and hardening of the head of the pancreas, syphilitic infiltration or ulceration and contraction inside the common ducts, similar conditions in the intra-hepatic ducts; cicatricial deformity of the liver may produce such dragging on the duct that its lumen may be insufficient for the passage of bile; and, lastly, syphilitic adenitis in the portal fissure may furnish the requisite pressure on the duct. The jaundice of the secondary stage of syphilis, which I take it is commoner than this tertiary jaundice, and which is seen concomitantly with the roseolous skin, is also difficult of explanation, though, we can here add, a specific cholangitis and a condyloma at the papilla to the other possibilities of production. I have also seen jaundice in the cases of enveloping gumma where many structures are involved, and here pressure of the gummatous material outside the ducts, intra and extra hepatic, probably accounts for the condition. These latter cases seem commoner from my own experience, and what very little of literature there is, than syphilitic manifestations confined to the gall-bladder, ducts, and portal fissure. Jaundice and syphilis are not linked ideas in one's mind as jaundice and cholangitis, or jaundice and stone, jaundice and cancer of the head of the pancreas; but certainly a due association should exist, not because jaundice in tertiary syphilis is common, but because if the cause is not recognised and treated the patient will die, whereas the exhibition of mercury and iodide will certainly relieve and apparently cure, if used before the gummata have formed too dense a fibrous capsule and the infiltrations have resulted in too permanent a fibrosis; and I believe both these pathological terminations are reached only after a long period. Even the jaundice of secondary syphilis has dire danger if undiagnosed, as its tendency is to persist for a long time, and a very long continuance in some cases is associated with acute atrophy of the liver.

I have left in Melbourne a patient exhibiting yet another variety of gall-bladder syphilis. She is a middle-aged lady, who has been wasting much and departing from health for many months. Four weeks ago she noticed a swelling in the right lower abdomen. It was not very painful or tender, but steadily enlarged. When I saw it, carcinoma of the cæcum seemed the most likely diagnosis. The lump was hard, nodular, and very movable, laterally and upwards. She passed a good deal of blood and mucus at times, and had much constipation. Incision showed a deformed liver of the saddle-flap variety, with, in addition, a large, flattened Reidel's lobe, at the extremity of which was a much distended yellowish-white gall-bladder. This contained more than 2 oz. of clear mucus; its walls were fleshy and very thick, even to half an inch or more, the mucous membrane participating, but very slightly in the thickening. The wall was of the same yellowish whiteness as the surface all through. Encysted in the neck was a large gallstone. The liver being well dislocated, I could satisfy myself that the ducts were macroscopically healthy and contained no other gallstones. The deformity of the liver was largely accounted for by the presence of fibrous trabeculæ meandering through it in many directions, giving the appearance of an early stage of botryoid liver. The gall-bladder was removed, and made an interesting specimen, which left doubts in one's mind as to whether the great mural thickening was due to ordinary chronic inflammation, carcinoma, or syphilis. It may be remarked that the greatest depth of wall was not where the gallstone reposed. Dr. Mollison is certain of the syphilitic nature of the specimen, and the patient is doing well on the usual medication. There can be no doubt, I think, of the propriety of classing syphilis as one of the causes of gall-bladder enlargement.

It may be permitted me to interpolate here the mention of an excellent example of the well-known "botryoid" liver, which is the untreated outcome of gumma and gummatous infiltration of the liver, which, when affecting the left lobe may give rise to very remarkable epigastric tumour or tumours, and if the right lobe is mainly implicated, masses simulating a gall-bladder stuffed with stones or cancerous nodes. The patient. a sea captain, *æt.* 39, with a syphilitic history, complained of severe pain in the epigastrium and vomiting. He was not jaundiced, but of a remarkable earthy colour. A rough, irregular swelling could be felt below the ensiform cartilage, and the palpable edge of the right lobe was of a similar character. Any indiscretion in diet, especially alcoholic excess, brought him nearly to death's door with hæmatemesis and prostration. In his fatal attack the question of opening his stomach and getting at the ulcer, which Dr. Maudsley and I predicated as the most likely source of the hæmorrhage, obtruded itself. However, he sank so rapidly that operation was not permissible, and an autopsy failed to show any ulcer in the stomach, but the gastric and œsophageal veins from which the fatal bleeding had come were very large, indeed. The liver was much deformed all over, and its advanced pathology seemed hardly compatible with the periods of fairly good health which the patient enjoyed when he took iodide and care of his diet.

In trying to pursue the somewhat systematic scheme which I suggested at starting, we may now consider stomach syphilis, and some of its manifestations are truly marvellous. If a man who knew the appearances of ordinary syphilis in other parts of the body were to imagine for himself the most remarkable forms he could picture for gastric syphilis, "the brightest heaven of his invention" would probably contain no more extraordinary tumour than that which occurs in the gastric wall in some rare cases of syphilis. I do not refer to those cases where parietes, gall-bladder, pylorus, and other structures are enveloped in a cloud of gummatous material; such a case I have seen, and they fall into line with cases I have already described, differing only in taking in the stomach as well as other parts. In the instances I wish to dilate upon, a large definite solid new growth occurs in the stomach wall; it does not lose in density from its centre to its periphery; it does not gradually fade away into normal tissue, but it has its solid bosses and firm, partially-detached masses, with as clear-cut edges as the carcinoma which it so strongly resembles. It is a separate, distinct tumour, which can be picked up between the fingers—a performance impossible in connection with the widely diffused gummatous cloud wrapping together several separate tissues. It is very like cancer or sarcoma to look at, and, with the exploring finger only, I think a differentiation cannot be made. It is this strong physical likeness to malignant disease, quite apart from similitude in symptoms, which render the surgeon cautious to an advanced degree. The following case is a handsome example :—

Mrs. W., *æt.* 36, had enjoyed good health until two years before she consulted me. At this time, gradually, began dyspeptic symptoms and, concomitantly, she lost weight, strength, and her robust appearance. There was no obvious cause for all this, for she was and had been leading a healthy country life. This downward course was slow, until about three months before I saw her, when she began to have pain and much tenderness in the region just below the eighth costal cartilage, on the left side, and here a lump was soon to be felt. Her health now deteriorated rapidly; she became very anæmic and distressed indeed; she could hardly walk. Her pain was continuous, though worse at night when she lay down. She could scarcely bear her clothes over the tumour, so tender was it. A hurried examination showed that the abdominal wall moved fairly well, except in the region where the pain was. As she was very wasted the rib margins stood out in strong relief, and below the left one a distinct tumour was visible and palpable. It was irregular in shape and gave somewhat the sensation of an inflammatory swelling, but no fluctuation could be felt in it. Respiration did not affect its position; it was not movable within the abdomen, and attempts at moving it caused intense pain. No glandular enlargement was noticeable anywhere. The patient's temperature was raised to 101° Fah., but she had had no rigors, and there was no redness of the skin over the tumour. She had no vomiting, and it seemed quite inadmissible to obtain stomach contents by tube. It was evident that operation was necessary at once, the working hypothesis being that the symptoms were due to a perigastric abscess with very thick walls. Operation was begun with an incision cautiously made over the swelling; as no pus was met with, the cut was enlarged, and the peritoneum opened to a small extent with some difficulty, as it was adherent to an underlying mass, which was explored with a hypodermic syringe without striking pus or a cavity. The sensation derived from the insertion of the needle was not suggestive of carcinoma, but rather of inflammatory tissue. It felt very much as if the needle had been pushed into a hard apple, and, to continue the simile, the hole left was such as would remain in an apple. The peritoneal cavity was now demonstrated above and below the adhesion, and it was noticed that the parietal membrane was altered, being thickened and injected. The investigating finger now met with a large mass evidently situated in the wall of the stomach. The tumour was as big as the palm of the hand, with processes issuing in several directions, but there was no attempt on the part of the growth to travel along the lesser curvature. The circumferential lymphatic glands were enlarged, reddish, and fleshy. With the eyes shut, the growth, which could now be moved about, felt very much like a carcinoma indeed, but it did not look altogether like one, especially about the part which had been adherent. It seemed too fleshy, not cicatricial enough, for chronic cancer; there was not the dull grey, opaque white of carçinoma, but a semi-translucent, almost opalescent look about it. For all this, the idea of carcinoma would come first to one's mind on seeing the tumour as well as feeling it. The condition of the posterior wall of the stomach was now investigated, and while opening the lesser cavity a clue to the nature of the case was found in the presence of white shining, glistening bands of fibrous adhesions scattered in the great omentum quite irregularly and without obvious causation, there being no adherence of the omentum to the parietes or the stomach. One of these bands was circular and surrounded a hiatus in the omentum, having streamers issuing from it in several directions. There were also many linear strands of dense fibrous tissue mingled in the omentum which evidently had no use in limiting inflammation or extravasation from the stomach, and which appeared of greater age than the tumour itself.

Nothing unusual was found on the posterior surface of the stomach. These omental appearances decided me against any operation, so the abdomen was closed after the removal of a small piece of the tumour for Dr. Mollison, who assured me he had never seen endarteritic changes more easily guaranteed as syphilitic than those in the specimen. In five weeks the patient, under appropriate treatment, had gained health, strength and good looks, and lost her tumour as far as external palpation could recognise. This gives us examples of two forms of syphilis in the stomach; a third is well exemplified in the following cases :—1. G.C., male, *æt.* 37, had been ill more or less for two years with some gastric trouble, diagnosed as gastric or duodenal ulcer. The prominent symptom when the case first came under my notice was persistent vomiting, which allowed of no food being retained. Food caused immediate pain in the epigastrium, which was speedily relieved by vomiting. Hæmatemesis had occurred twice in the last few days, once amounting, according to the patient, to the vomiting of a pint of blood. An examination of the patient showed him to be of a peculiar blanched complexion. His abdomen showed fulness in its upper half, and peristaltic waves could be seen passing from left to right across his dilated stomach. No tumour could be felt anywhere, and no superficial enlarged glands were present. There was a tender spot in the epigastrium to the right of the middle line, and firm pressure here caused great pain. Operation was decided on, and revealed a lump formed by a much thickened and stenosed pylorus and marked gastric dilatation. A gastrectomy was almost decided on, but an examination of the lymphatic glands showed them to be large, fleshy, reddened and succulent, and I contented myself with removing some of these for examination, having suspicions of syphilis. The glands showed no signs of malignant structure, only inflammatory changes. The arteries in many places had very thick walls, and in some instances had become thrombosed Here, again, the tumour had a semi-translucency almost like that of the pudding known as blanc-mange. A course of mercury and iodide improved the patient very much; he gained weight, lost his pain and no more blood, but his gastric dilatation did not go down, and three months after I again opened his abdomen, finding the tumour very decidedly smaller and the glands more normal. Instead of performing gastro-jejunostomy, I chose pyloroplasty. The former would, I think now, have been the better surgery. The pylorus proved to be very thick, and there was the scar of an ulcer inside. The operation was difficult, but a good-sized lumen eventuated. The patient at present, three years after the operation, is in very fair health, but has to take great care as to what he eats, and is always benefited by an antisyphilitic course of medicine. I never see him but I am thankful I did not perform an unnecessary gastrectomy, and wish I had done the more appropriate gastro-jejunostomy.

Here, again, no trial of the acidity of the stomach contents seemed justified. The amount of blood lost was remarkable from an ulcer undoubtedly syphilitic.

The second and very similar case is not so pleasant for me to relate. It was that of a man *æt.* 56, whom I saw in February of this year. He complained principally of wasting and vomiting. Symptoms began about six months ago, in which period he has lost three stones in weight. No severe pain at any time has attacked him, but he has a hot sensation after food, and there is some tenderness in the epigastrium where a sense of resistance is present but no palpable tumour. His stomach is much dilated, as proved by CO_2 distension, and by the fact that he vomits more than he takes, and observes in the vomit food taken several days before. Chemical analysis of the vomit fails to show the presence of free HCl. Operation disclosed a pyloric growth apparently carcinomatous and suitable for removal. The anæsthetist was anxious that no time should be wasted in deciding as to procedure, and I performed a partial gastrectomy. The specimen proved to be a syphiloma with much fibrosis and cicatricial contraction. Five days after the patient died of pneumonia much to my regret, my solace being that there was no leakage either at the closed end of the stomach or at the junction on its posterior surface.

It seems that a large syphilitic infiltration mass may appear at the pylorus; this may correspond closely with the ulcer inside; or the infiltration may overlap the ulcer much in all directions; or there may be a syphilomatous tumour and no ulceration; or an ulcer presumably syphilitic may occur with a minimum of infiltration. The difficulties surrounding the diagnosis of syphilis show up here very strongly. A neighbouring gland or a piece of the actual tumour may show microscopical changes in the shape of thickened arteries, endarteritic alterations, endothelial irritation and thrombosis, that may safely be ascribed to syphilis, but with the ulcer these signs cannot be laid at the door of syphilis alone. A non-specific ulcer situated in a place much irritated by stomach contents and muscular spasm will show some of these same signs in parts at all events of surface, so that no certain judgment can be given. However, arteries in other parts of the body which evidence no obvious macroscopical disease may be thickened and exhibit the phenomena of endarteritis, and this would go a long way to prove the pyloric ulcer syphilitic; but we cannot very well in the living subject cut out a piece of liver in order that the microscope should decide whether the ulcer is syphilitic or not. Then again, can a person who is syphilitic have an ordinary chronic ulcer which is not syphilitic?

It is these things which make the discrepancies so great in the opinions of authorities on the subject. The analogy of ulceration of the leg helps us a little; a syphilitic is exposed to the same causes producing ulceration of the leg as a non-syphilitic, but in the former the syphilitic taint is an additional factor tending to lessen the resistance and perpetuate the ulceration. We all know how syphilis shows itself in waves of activity in the organism generally; how its natural history is illustrated by periods of obvious disease sandwiched between periods of apparently good health; how in tertiary syphilis even, a man may have a good year and then a bad year, a good six months and then a bad six months; now these waves of disease manifestations have their counterpart in gastric and duodenal ulcerations due to syphilis. A strong opinion of the syphilitic nature of an ulcer at or near the pylorus can be given if evident healings have taken place in several areas, if patches of active cell growth can be seen in old fibroses; but to judge of this in the living subject during the course of an operation is very difficult, and however valuable these evidences of repair intermixed with active disease may be in the museum, they do not aid the surgeon much in the few minutes he has at his disposal.

High authority here helps us, as Professor Allen tells me that he is fairly certain that non-cancerous ulcers actually at the pylorus or immediately under cover of its valve on the duodenal side are, in his matured opinion, very generally syphilitic.

The therapeutic test is the best means of diagnosis, and this, too, is open to misconstruction on several counts. Syphilomata are more easily recognised as not being cancer the younger they are, *i.e.*, when they are fleshy, succulent and inclined to show the opalescence I referred to. This opalescence is very different, I may remark, from the angry purplish appearance seen in a quick growing malignant adenoma. The more fibrotic they become, the more they are liable to be mistaken for carcinoma, and the similarity is very close in cases. The lymphatic glands differ in the two diseases, being softer, redder, fleshier in syphilis than in carcinoma, but it is only in well-defined varieties that a diagnosis could safely be made from glands without the microscope. However, what is almost as important is, that a suspicion of syphilis may arise in the surgeon's mind from an inspection of the glands.

These pyloric syphilomata cause contraction without the presence of an ulcer, so that the dilatation of the stomach is no help to us. The surgeon has to make up his mind quickly. In cases where the signs make him suspicious even slightly of syphilis I feel sure he ought to restrain "the hands which have made him wise," and content himself with removing a gland close to the disease and perhaps a small piece of the tumour, closing the abdomen after a somewhat ignominious retreat.

If the pyloric lumen is evidently very small from cicatrization, when felt by the invaginating little finger, a gastro-jejunostomy will be the proper procedure if the case is syphilitic, but the ris of gastrectomy when medicine or the much less severe operation of anastomosis will restore the patient to comfort is an awkward one to face.

Now is the time for the surgeon to remember how associated are the organs in this region; how the stomach duct, which the duodenum may be called, the liver duct and the pancreatic duct all meet at one place; how these organs and their appendages are supplied by a common trunk, the cœliac axis; and how inflammatory processes in one organ can easily spread to the others, the subsequent inflammation giving rise to much greater effects than in the original organ. Reminiscent of these things, a rapid investigation by the surgeon of the surrounding parts may afford him much help in coming to a decision.

Markings of various sorts on the liver, patches of purposeless adhesions and stray fibrifications in the omentum, and possibly general fibrosis of the pancreas may put him on the right diagnostic path. However, in spite of every help—the history of the case, the look of the tumour, a general survey at operation, and microscopical assistance afterwards—it may be difficult to determine unmistakably. Such a case is at present under my care. I could not make up my mind at operation that the case was cancerous: Dr. Mollison found some endarteritis in the glands I removed, and no carcinomatous elements, but could not give a definite opinion. Fortunately, because of the great contraction of the pylorus, I had performed a gastro-jejunostomy, and a few days after started the patient on an antisyphilitic course of mercurial inunction and iodide by the rectum, with the happiest results. Even now, however, I cannot be quite sure of the syphilitic nature of the case, but I can be, and am, very thankful that I did not perform gastrectomy, which, judging from the shock present after the less severe operation, would have probably proved fatal. It is likely that a good percentage of supposed cancer cases, which live a long time after gastro-jejunostomy, are really syphilitic, the diversion of the gastric current and the mere operation itself having a very beneficial effect. In this last relation, what a number of cases have been reported where the abdomen has been opened to find a chaotic mass of adhesions, too intricate to unravel, the surgeon has reluctantly closed the abdomen, and the patient has promptly lost his symptoms. All these, of course, cannot be claimed as due to syphilis, but a percentage, I feel pretty sure, will fall under the first class of intra-abdominal syphilis of which I spoke.

There is yet another connection of syphilis to be spoken of in gastric pathology. Carcinoma may be engrafted on a syphilitic base. This occurs at the entry and exit of the alimentary canal, and may not be uncommon in the stomach. The University Museum in Melbourne has more than one specimen, which, on the weighty dictum of Professor

Allen, is of this nature. At the present time I have under my care a lady whose gastric tumour, on the assertion of Dr. Mollison's microscopy, participates in both diseases.

Sarcoma may enter the lists, and is to be recognised generally because of its discoid rather than spheroidal tumour, because of its tendency to avoid the lesser gastric curvature and to disregard the integrity of the duodenum; but while these characteristics serve to differentiate it from carcinoma, it may be hard to exclude syphilis when sarcoma is present. It is probably rarer than either carcinoma or syphilis, and here again we see how malignant disease may choose a syphilitic site upon which to develop. for we have in the Melbourne Museum a specimen of gastric sarcoma, with the major portion of the stomach, which I removed some 2½ years ago (the man being still alive and in good health), and which is declared by Professor Allen and Dr. Mollison to be sarcoma growing from a syphilitic foundation.

Of chronic hypertrophic gastritis due to syphilis it is difficult to speak clinically, though pathologically it is a definite entity.

These considerations enhance the already great responsibility laid upon the surgeon in gastric surgery. The indurations he has to differentiate are those of simple chronic ulcer, and simple fibrosis, of carcinoma, of sarcoma, of syphilis, or of combinations of these last. Is it any wonder that he sometimes makes a mistake in his choice of operation, when we consider the complexity of the evidence, and the short time in which he must arrive at his decision?

Much as I dislike reopening the abdomen after a short interval, I believe the best surgery will more often than in the past lead to such a course, fortified as it will be the second time by microscopical evidence.

In spite of gastric ulcerations, fibroses, contractions, infiltrations, and actual tumour masses of gastric growth, we have not exhausted, I believe, the roll of macroscopic syphilis in this region.

Concrete lumps of syphilitic origin may occasionally be found in the cellular tissue behind and at the sides of the first and second parts of the duodenum, and by their presence and almost cartilaginous hardness produce jaundice. These are distinct from syphilis of the pancreas, which is said to be rare, Petersen having found it in only one case out of 88 p.m.'s on the subjects of tertiary syphilis. It seems likely that some of the cases of chronic pancreatitis forming tumour are due to syphilis and some of the fibrotic cases also, but I think we cannot speak with much certainty yet.

Syphilis of the small intestine I have seen in two forms, both of which tend towards narrowing of the lumen, but neither of which, I believe, has the extreme constriction which I have seen in sigmoid ulceration due to syphilis. Even as gummatous deposit at the pylorus may produce obstruction without ulceration, so the small intestine may be strictured by similar deposit without a correponding ulcer inside.

Syphilitic ulceration of the small intestine is rare, but has often been described. We have a good example in the Melbourne University Museum, in which the ulcers are oblong, about three-quarters of an inch in length, situated at the fundus of the intestine, and presumably starting in Peyer's patches. Their bases are indolent and indurated, thickened and opaque, with much congestive engorgement. On the peritoneal surface the ulcers are represented by little filamentous tags and adhesions. These were diagnosed as syphilitic before microscopical examination, mainly because they would fit no other classification, though, of course, the induration of their bases was suggestive.

Of the second variety, which is very different, I have seen no description. The ulcers are small, run transversely to the intestinal lumen, exist in considerable numbers, and reveal their position on the peritoneal surface by silvery scars, very like lineæ albicantes indeed. Each scar of itself would do but little to narrow the gut, but existing in large numbers, as in this case, they diminish the calibre very considerably, giving rise to symptoms of obstruction. On my return to Melbourne I expect to have to remove some 18 inches of intestine for this cause from a lady upon whom I have operated before, and who I know has this peculiar condition which much evidence permits me to certainly class as syphilitic.

These numerous ulcers from time to time give rise to blood in the stools with much mucus, and attacks of an obstructive character. It is strange how the terminal result in skin ulceration differs from what is seen as the final scar in internal ulcerations due to syphilis. The papery scar left eventually by extensive and long-continued cutaneous ulceration has little tendency to contract, in obvious contradistinction to the strongly-marked disposition to cause stricture even to total closure, which we see with such disastrous endings in syphilitic ulcerations of the trachea, of the bronchus, of œsophagus and pylorus, sigmoid flexure and rectum. These ulcerations of the small intestine which I have just described seem to occupy a position between the external and internal ulcerations of syphilis, leaving small, thin, silvery scars on the peritoneum, which, however, in their multiplicity undoubtedly lessen the calibre of the intestine.

As far as I can make out, the region of the cæcum, the ileo-cæcal valve, and the appendix is but little susceptible to syphilis—an exception in strong contrast with the frequent manifestations of tubercular disease.

In spite of having had a number of appendices examined microscopically, I know of only three which can safely be classed as syphilitic. They were very chronic cases, and the specimens were densely fibroid and hard, with very little appendical lumen left.

It is an interesting speculation, upon which, however, I can throw no light, as to what part syphilis plays in obliterative appendicitis, and in those cases where the appendicitis has been of a chronic nature from the first. It is probably only one cause, and not a common one, of chronic inflammation of the appendix. Of course the appendix and cæcum and any part of the colon may be engaged in a large enveloping gumma, such as I have described earlier in this address, but more concrete syphilis affects but rarely the large bowel until we reach the sigmoid, when we find both ulceration and tumour-like formation not uncommon. Both may be associated with similar lesions in the rectum. I have seen stricture of the sigmoid due to girdle ulceration of the gut so tight as to be almost impermeable, and this with very little tendency to induration around.

Another case in which there was undoubted syphilitic ulceration healed by drug treatment developed marked obstructive symptoms, which were entirely relieved by the freeing and division of strong adhesions round the sigmoid, though the operation was started with the idea of resection.

Syphilis is undoubtedly a cause of peritoneal adhesions, even as traumatism produces them; but it is very difficult to assign the proper importance to either as a causal factor. Wherever there is, or has been, an ulcer or gumma, the nearest peritoneal surface may be the seat of adhesions; but also, I believe, the syphilitic poison can produce adhesions without ulceration or obvious gummatous deposit.

Remarkable are the developments of the disease we are discussing in the retro-peritoneum, and some of these are massive in their formation. There is no doubt that mesenteric and mesocolic glands enlarge in the secondary stage, in that mucous membrane disturbance which corresponds with the cutaneous efflorescence, but the size they attain is inconsiderable, and their diagnostic value and clinical importance are slight. In the tertiary stage, however, the retro-peritoneal glands generally may become transformed into very large tumour masses easily mistaken for sarcoma. Their stability is but slight, and in some instances mere inspection by operation is sufficient to induce their absorption, frequently to the astonishment of the surgeon who has given an unfavourable opinion. It is well worth while, in every case of supposed sarcoma of the retro-peritoneal glands, to remember the possibility of syphilis being the cause—a cause the effects of which are easily removed by simple operation and drugs. Not so tumefied, and with their cells not so loosely aggregated, however, are all these glands altered by syphilis; some are hard, even shotty, and but moderately enlarged, similar in physical aspect to the glandulæ concatenatæ when enlarged in the neck; and gradations occur, I believe, between these extremes. Both these enlargements may be associated with syphilitic disease of the rectum, which is itself often associated with marked pyogeny, and this may be largely responsible by toxicity, for the great size at times attained by the syphilitic glands as well as for their succulent instability.

To my mind the surgical moral to be drawn from a consideration of retro-peritoneal tumours is that in no case should the diagnosis of sarcoma be considered final until operation has proved the absence of syphilis and hydatid, the former being a simulator of the softer sarcomata and the latter of the harder varieties.

Again, syphilis works marvellous mutations in the cellular tissues itself. It appears to be responsible for a strange wasting fibrication of the usually fat-laden sup-peritoneal tissue, and at the opposite extreme there may arise from the syphilitic poison a widespread homogeneous gelatinoid mass, in which the kidneys, great vessels and glands may be embedded as in glue. The same material filling the cavity of the sacrum and surrounding the nerves and vessels of the pelvis may easily convince the surgeon of the presence of inoperable cancer, as it may also in the mesometrium. In such cases, I think the extraordinary results are largely due to the spread of toxic matter from a pyogenic infection of syphilitic disease of the rectum and sigmoid. Surgeons have long since realised the far-reaching effects of a mixed infection in tubercular disease, but I think have hardly yet appreciated its importance in modifying syphilitic manifestations.

Mine will not have been a failure in this presidential address if I have directed your attention to the fact that syphilis is not very rarely the cause of pathological conditions within the abdomen, and that these pathological conditions are easily confused with other commoner diseases, especially carcinoma.

When one has once grasped the idea of the rôle played by syphilis in abdominal pathology, so deceptive are the facts, so elusive are the differences between it and other chronic inflammatory conditions, that one is apt to see syphilis everywhere, to discover a bandit behind every bush; but what I have set down in this paper has been of my own knowledge, or of others whose judgment I trust, and I have discarded many cases which, syphilitic in my belief, have not been fortified in diagnosis by the microscope; thus I hope you will think that I have "taught myself that honourable stop, not to outsport discretion." Yet there float into one's mind the words of the dying Ricord: "They reproach me with having seen syphilis everywhere; I, on the contrary, reproach myself with not having recognised it often enough."

Though the study of syphilis — "the specific disease which stands almost alone in mystery and malignancy"—is one of the most fascinating mental exercises that we have in our profession, we cannot but fervently hope for the good of the race that the *Spirochæte pallida* of Schaudinn will prove to be the germ of the disease, and Metchnikoff and Roux are very hopeful of the parentage.

Until we have eliminated syphilis—and it has been in possession of the human race from times immemorial—so long will man be unable to come into his kingdom, his complete mastery over Nature, the *Regnum Hominis* which appeared to the mental eye of Bacon as a prophecy for the fulfilment of which modern science bids us to cheerfully hope.

THE DIAGNOSIS AND TREATMENT OF INTUSSUSCEPTION

By Charles P. B. Clubbe, M.R.C.S., L.R.C.P., Hon. Surgeon, Royal Prince Alfred Hospital and Royal Alexandra Hospital for Children, Sydney; Joint Lecturer on Clinical Surgery, Sydney University.

I PROPOSE this evening to deal with this subject entirely from a clinical point of view, and in as practical a manner as possible. I shall not burden you with statistics, neither shall I say anything about the etiology and pathology of intussusception nor go into the vexed question of nomenclature, which now threatens to become so serious if the views of Mr. Coroner are generally adopted.

Hospital statistics, not only in Australia, but elsewhere, show that intussusceptions are much more common now than they were, say, even ten years ago. Is this due to the fact that invagination of the intestine really takes place more frequently? Or is it due to the fact that cases which were formerly overlooked are now diagnosed? Unfortunately, the diagnosis in a considerable number of cases is not made until it is too late. In hardly any other class of case is a correct and rapid diagnosis so essential, since the death-rate bears a definite relation to the length of time that has elapsed from the onset of the symptoms to the commencement of treatment.

Although there has been a tremendous drop in the mortality after laparotomy from the 90 per cent. of a few years ago to about 25 per cent. of the present day, there is no reason why even better results should not be obtained if we could only persuade men to send these cases into hospital directly they see them.

It is easy enough to diagnose a case of intussusception when the symptoms have existed for three days. In the first place the child will probably look very ill. There will have been the history of the sudden onset, of vomiting, of straining, and of the passing of blood and mucus in the place of fæces; then there will be the very obvious tumour on the left side of the abdomen or in the rectum. Very often under such circumstances the diagnosis is useless. It is too late. The time for any hopeful treatment is swiftly passing, if it has not passed. The great majority of cases if left until they get into this condition will die. They are already poisoned; they have no resisting power, and rarely recover from the shock of the laparotomy. Yet case after case comes to us in this condition, which is truly heart-breaking when we consider how much could have been done, with every prospect of success, had we got them earlier. Yes ; these cases must be diagnosed early if we are to get good results. The signs of intussusception are surely clear and definite enough. It is hard to understand how they can be overlooked. There is first the sudden onset in a previously healthy child ; the scream, the child turns pale, soon vomits, and very often passes normal fæces ; then it is fretful, will not be comforted, and keeps getting attacks of crying and screaming and drawing up its legs. After a variable period blood is passed per anum. With the history of the sudden onset of illness, the pallor, screaming, occasional vomiting and the passing of blood by bowel—and it is this passing of blood by bowel that the mothers all lay stress upon—no doctor should let such a case pass him without careful examination. Yet, strange to say, case after case, with the most typical history and characteristic symptoms, is overlooked or "missed" in the first instance, and therefore only gets into hospital when its chances of recovery are of the slenderest description. This is the sort of history the house surgeon often gets from the mother :—"Baby was quite well till three days ago, when he was took bad quite sudden like in the morning; he screamed and sicked up his bottle ; very fretty all day, with fits of crying, and he kept drawing up his legs. In the afternoon what came from him was pure blood. I was frightened. I took him straight to the doctor. He said, 'Give him a dose of castor oil.' I did, but he sicked it up. Took him to the doctor next day, because he seemed no better and kept passing blood. He looked at him, and gave me a bottle of medicine. To-day, when he saw him, he felt his stomach and he sent me straight here with a note."

With such a clear history the child should have been examined the first time he was seen by the doctor. If the doctor is too busy to examine such cases he should send them straight off to the hospital. I wonder how many children have been sacrificed in this way—with a dose of castor oil and a bottle of medicine. But it is not only the hard-worked general practitioner who overlooks these cases. Sometimes when taken direct to the hospital they are "missed," prescribed for, and sent away. This does not often happen here, because the Sydney graduate-resident has been well drilled into the importance of keeping a smart look-out and nearly always "spots" intussusceptions. Lately I heard of a case that escaped the casualty surgeon, was drafted into the out-patient department, and curiously enough when it got there was "missed" by the honorary. This child was afterwards operated upon in one of the suburban Cottage Hospitals. If men would only listen, and pay attention to the story as told them by the mother, very few intussusceptions would ever be sent away undiagnosed. In very few diseases does the history convey so much to "those that have ears to hear." The suddenness of the attack in a child previously quite well ; the scream, followed by the pallor, some times described as fainting or stiffening out ; then the subsequent vomiting and straining ; fits of crying from time to time, with intervals when the child seems all right. With these facts before him, even without the story of any passing of blood, the doctor should strongly suspect intussusception.

Some men who miss these cases, do examine them on the chance of finding an intussusception. They feel the abdomen, and even make a rectal examination. The child is probably screaming when they are examining the abdomen ; it is therefore not to be wondered at that they are unable to feel the mass ; then they find nothing in the rectum, because the intussuception has not had time to get there. So, after this examination with negative results and seeing that the child does not look at all ill, they persuade themselves that it cannot be a case of intussusception.

Mass in Rectum.—This is mentioned in all text-books as a diagnostic sign. As an aid to diagnosis, at the time when a diagnosis is useful, this sign in valueless; because, as a matter of fact, the mass so rarely reaches the rectum within 24 hours of the onset. What use is it then as a diagnostic sign ? It is only a trap to catch the unwary. If we are to get cases quite early, this "mass to be felt in rectum," as an aid to diagnosis, should be expunged from the text-books.

To examine a child properly, it should be undressed. The abdomen should be palpated carefully with the fingers If nothing can be made out in this way it should be examined bi-manually, the fingers of one hand being placed in the loin, just as when examining a kidney, first on one side then on the other. If there is any distension, or the child resists, it is quite useless to expect to find a mass in the abdomen, even though there be a large one. To make certain that there is no mass, an anæsthetic must always be given. No one need hesitate about giving chloroform for this purpose. If a second man is handy, and the financial circumstances of the people admit it, he should be sent for; but in the case of really poor people, the doctor should give the anæsthetic alone. Or if he does not care to do this, he should send the child at once to the hospital as a suspected case of intussusception.

These babies generally take chloroform very well, and in a very short time they are sufficiently relaxed to permit of a satisfactory examination, and therefore we are able to make out a tumour, if there is one. In these cases when the mass is once felt the diagnosis is complete. All that remains to be settled, then, is where the child is to be treated. If it is a hospital case, it should be sent in at once, with a note addressed to the medical superintendent and marked "urgent," so that there will be no delay about the admission.

Nearly all writers on this subject have described the tumour that is felt as a "sausage-shaped" mass. Occasionally the mass may resemble this article of food, but more often it does not. The mass that is felt in the early cases is often more rounded than oblong, and about the size of a walnut. It may be said to be nearly always present. I can only remember one case (out of all that I have operated upon) in which I opened the abdomen without first feeling a mass. In this case there was much distension, but the history and the symptoms were characteristic. I felt certain, too, that if I did not meet an intussusception I should find some other form of intestinal obstruction. When the mass is small and is tucked up under the liver it may be difficult to find for a time. In searching for it we should go systematically through the abdomen, beginning at the cæcum, and follow the colon right round.

When the mass is in the transverse colon it is sometimes found very low in the abdomen, and it is often easily moved about. If oblong, the mass is always curved, with the concavity towards the umbilicus. The hardness of the tumour is often an indication that there will probably be very considerable difficulty in completing the squeezing-out process when the mass is reached. In advanced cases, when nothing can be felt by palpating the abdomen, the mass will probably be found in the rectum.

There is sometimes a difficulty in making a diagnosis between intussusception and acute colitis in cases where the meso-colon is thickened, but the difficulty should not be insuperable if the case is carefully gone into. The onset in both cases may be sudden, but in intussusception, after the first few hours, the obstruction is generally complete, whereas in colitis there are frequent motions mixed with the blood and slime. The tumour in these cases of colitis is generally much longer and less definite in shape than in an intussusception at that stage. These colitis cases always look desperately ill, and often die.

The general condition of the child with an intussusception in the early stages is very apt to deceive. They may not look ill. The temperature is not raised nor the pulse-rate quickened. It is hard to believe that they are suffering from a grave abdominal condition, and this is what makes it so difficult for some men to make a diagnosis in the early stages. Later on, when the child is obviously ill and the diagnosis is plain, its chances of recovery are very small.

Irrigation.—Many years ago practically the only treatment for intussusception was irrigation. Nowadays it is the fashion to decry irrigation as useless, dangerous, and an utterly unscientific method of treatment. It is difficult to understand why such a valuable aid to treatment as irrigation undoubtedly is should be so universally condemned. Perhaps the explanation lies in the fact that too much has been expected of irrigation. It must be remembered that treatment by injection alone will only cure a certain percentage of the early cases; so that when we give an injection hoping to effect a reduction we must always be prepared to go on with the operation should the injection fail. The child must be under an anæsthetic; then, after the injection has been given and the fluid allowed to return, if the tumour can still be made out, the operation should be proceeded with at once. If, on the other hand, the tumour can no longer be found after careful search, we may well hold our hands. Let the child be put to bed and watched carefully. If there is any return of the symptoms it should be re-examined in from six to eight hours. In any case these children should be kept under observation for two or three days.

But irrigation is useful in all cases, even in those we do not expect to reduce. It is especially useful in cases where we find the mass on the left side of the abdomen. In a large number of cases the intussusception is very much reduced, and in the gentlest manner by the injection. It is often pushed right round the colon. Thus a mass that prior to the injection was felt in the descending colon will sometimes be found to have been pushed right round into the ascending colon. Now, the point is this: Is there not far less risk from the operation when the mass we have to deal with lies in the neighbourhood of the cæcum than when it is the lower colon or rectum? Some men tell us it is quite easy when the abdomen has been opened to reduce the mass intra-abdominally, with their fingers, from sigmoid to cæcum. I have never yet met with a case in which it could be done easily and quickly, and I am quite certain that the manipulations necessary to bring about such a reduction intra-abdominally would cause far more shock and do much more damage to the intestines than an injection. But very few men attempt this method of reducing an intussusception. When the abdomen is opened, the mass is felt for. If it happens to be in the rectum. the fingers must be put into the pelvis to get below it, in order to push it up into the sigmoid, when it can be brought outside. When once outside, the reduction goes on famously until the splenic flexure of the colon is reached, when the mass must nearly always be replaced in the abdominal cavity again before it will move any further. After more or less manipulation it is coaxed through the splenic flexure into the transverse colon. It is then easily brought into view again, and moves along readily until it comes to the hepatic flexure, where there is often another stop, the mass having to again be placed in the abdomen before it will go on. After it passes this obstruction and gets into the ascending colon, it must again be brought outside in order that the final unfolding may be observed. The amount of shock that is caused by all this manipulation of the colon, this pulling out and pushing in, and the damage that may be done to the small intestines, which often obtrude themselves, will be apparent to most of you, and especially to those who have done any abdominal surgery. Now, by using an injection before opening the abdomen, in a good many cases all this manipulation will be avoided. The mass which has been pushed round from the left to the right side of the abdomen can be easily reached by an incision just outside, or through the right rectus. There is no prolapse of the small intestines, and the handling of the bowel is reduced to a minimum. And yet we are told that to give an injection to a case of over 24 hours' standing is unscientific, useless and dangerous! The danger must be very remote, because I have used injections in every case I have operated upon, before opening the abdomen, and I have not yet met with a ruptured colon. I feel sure that when men use injections intelligently, and recognise what can and what cannot be accomplished by them, they will find that they are still of great value in the treatment of intussusceptions.

Treatment.—After a diagnosis has been made it is better not to delay treatment for longer than it takes to make the necessary arrangements for the operation. It is useless to continue feeding the child, and if it is left in the mother's care while the necessary preparations for treatment are being made, she should be warned not to give it the breast. If there must be great delay, it should be given nothing but small quantities of hot water.

On the table, the child should be placed on a large hot water bag, and great care must be taken that this is quite warm, but not too hot. When the child is under chloroform, an injection of warm oil or water should be given by the surgeon. This can be given with an irrigator or the ordinary enema syringe. I always use the latter. The amount injected varies a good deal. A baby of three or four months generally takes from 10 to 15 oz. These injections must be given with discretion. I think the surgeon should always give it himself, because it is for him to judge, taking into consideration the size of the child, and the position of the tumour, the quantity of fluid to inject, and the amount of force that may be used. While the fluid is running out (and this may be much facilitated by leaving in the rectum the detached nozzle of the syringe) the abdomen may be again palpated. If the mass has entirely disappeared, and cannot be felt after careful examination, the child should be sent to the ward. At the end of six hours, if it shows any symptoms that point to a recurrence, it should be re-examined, and should be operated upon at once should the mass have reappeared. Under any circumstances, these children who have been apparently cured by an injection should be kept under observation for at least 48 hours. If after the injection the mass can still be felt, although in an altered position, the operation should be proceeded with, the child's abdomen getting a final clean up while the surgeon is re-washing his hands.

The site of the incision depends largely on the position of the mass in the abdomen. When this is on the right side, and so presumably in the region of the cæcum, the incision can be made outside the rectus, or through the outer border. But if the mass, from its position in the abdomen, is likely to be found in the descending or transverse colon, then the mesial incision must be used. The advantages of the lateral incision in a suitable case are that the mass can readily be got at often without the prolapse of any coils of small intestines. This is obviously a very distinct advantage. The disadvantages of this incision are several. The abdomen is not so easily opened, there is more bleeding, several nerves may be cut, the abdomen is not so easily closed. A hernia much more frequently follows a lateral incision than one in the middle line. So that when we make this incision we have to consider whether the advantages we gain from the greatly lessened immediate shock counterbalances these drawbacks. When the incision is made in the middle line it does not go through, but passes on one or other side of the umbilicus, and it should be made from 1½ inch above and extend to 1½ inch below this point. It is far better to have too large rather than too small an incision. If possible, the coils of small intestines should be kept in the abdomen, but it is useless to waste time fighting with them. A very little experience will tell a surgeon when to let them prolapse. The object is to get at the mass as quickly as possible, in order to begin to reduce it, either inside or out of the abdomen. When the mass is brought outside the abdomen, if it happens to be in the descending colon, it will be noticed that there will always be a difficulty in getting it to pass through the splenic flexure without first replacing it in the abdomen, and the same difficulty often occurs at the hepatic flexure. Although I have mentioned this before, I repeat it now, because I wish to emphasise this point. I find many men are not aware of it, and only find it out after it has caused them a good deal of delay and trouble. The reduction of an intussusception is always accomplished by squeezing from below upwards, not by pulling on the entering bowel. The first part of the reduction nearly always proceeds rapidly, the only obstacles being the colon bends, where the mesentery is short. In the bad cases the difficulty begins when the mass has been pushed into the ascending colon and gets down to the cæcum ; there it often stops, and will not budge. You are putting on as much pressure as you dare, the serous coat of the intussuscipiens is tightly stretched, and you think the bowel must rupture if you press any harder. Indeed, you may often see and feel the serous coat crack and tear under your fingers. You have now arrived at a very critical moment. You may get your assistant to very gently pull upon the entering bowel, while you continue to squeeze and manipulate the mass, at the same time doing your best to protect the sheath from further stretching. If there is no result from these efforts, not the slightest yielding, the time has come when you must decide how much longer to continue in this way, or whether to desist. No one gives up the attempt to reduce willingly, because the alternative, resection, is fraught with so much immediate danger, and offers so slender hope of success. When considering the subject it is well to bear in mind that very prolonged attempts at reduction by manipulation produce such intense shock that the child may be quite unable to rally, should it be found necessary to resect. Happily these very tightly fixed cases are not often met with. The mass, after resisting pressure for some time, begins to yield, and gradually unfolds itself. I have never seen any real adhesions; the main obstacle to the reduction is the œdema of the intussusceptum. If the intussusception has started at the caput cæci, or in the case of a double one, perhaps a few inches up the ileum, it will be noticed when the whole mass is apparently reduced that there is a small, hard, cup-shaped depression at its starting point, This concavity, which will be at the caput cæci, or, when it starts in the small bowel, at the side, opposite the mesentery, must be gently pressed out and made convex. After this has been moulded into the proper shape it must be held in this position for a minute or so, because it often tends to become cup-shaped again when the pressure is taken off. The appendix is nearly always maroon coloured from the nipping it gets, but unless it is black, or has lost its polish, I leave it alone. Our main object in these cases should be to get the abdomen closed as soon as possible ; anything that delays this must add to the shock. Gangrene of the gut as the result of intussusception is extremely rare in children.

After the reduction is complete, and any tears of the serous coat mended with a few fine catgut sutures, the damaged bowel should be carefully washed with normal saline and returned to the abdominal cavity. A small piece of flat sea-sponge is then introduced in order to prevent any prolapse of the intestines while the abdomen is being closed. This can be done in layers with catgut, or through-and-through silkworm sutures can be used with a Reverdin's needle. This latter is certainly the most expeditious, and, probably the safest, method of closing these abdominal wounds. It is certainly not safe to trust to catgut alone, so when layering is done, one or two "silkworms" should be put in as well, if not right through, at all events so as to take the aponeurosis as well as the skin. Many accidents have happened through the premature removal of the sutures by over-confident house surgeons. As a rule none of them should be removed before the tenth day. It is often wise to leave some in for a fortnight.

To dress these cases properly a little care and commonsense is needed. Do not just put on gauze, then narrow strips of wool, one on top of the other, in the middle of the abdomen, and make an attempt to keep this dressing in place by means of a many-tailed bandage, many times too large for the infant. If you do, you must not be surprised in a very short time to find the dressing on the child's back instead of on its abdomen. The gauze should be damped, to prevent it from slipping, two flat pads of wool should be placed on it, and a layer of wool should go right round so as to cover the child's back and sides as well as the abdomen. This should be kept in place by means of an ordinary roller bandage, snugly, but not too tightly applied. To apply this bandage the child should be held up off the table by two nurses, one holding the legs and shoulders, the other the legs and thighs. The immediate after-treatment resolves itself into taking measures to combat the profound shock from which these little ones often suffer. Strychnine, hypodermically, will probably have been administered during the operation, if it has been a bad case, and this can be repeated as soon as the child is in its cot. A saline, under the skin during the operation, or in the rectum afterwards, is often indicated, and is of much service.

I always order a hypodermic of morphia to be given directly the child begins to be restless. In most cases this is necessary as soon as the effect of the anæsthetic begins to wear off. This small dose of morphia lessens the shock, gives them rest, keeps them quiet. I have never seen any ill effects. It is extremely rare to have any difficulty with the bowels after these operations in children. At the end of 12 hours the child has an enema of weak Condy, which generally has the effect of bringing away flatus and some fæces and altered blood. If there is any distension, this enema is repeated, and if the result is not satisfactory, small doses of calomel may be given.

As soon as they can swallow they may have small quantities of albumen water by mouth. And, from time to time, as they require it, small doses of brandy in the albumen water.

Formerly I used to artificially feed these children for the first 48 hours, then if they seemed to be doing well, let them return to the breast again; latterly, I have let them have the breast as soon as they rally sufficiently to be able to suck. This is undoubtedly the best way of feeding these children, when it can be managed, and saves no end of trouble. But there are difficulties. It is hard for the mother, if she has other children, to leave her home and give up all her time to the baby. Then, in children's hospitals there is a difficulty of accommodating the woman during the night.

I must crave your indulgence for the length of this paper. Many of the details may appear to some of you to be trivial and unimportant. It is well to remember that success in the treatment of these cases of intussusception depends, as in so many other affairs in this world, upon strict attention to, and the exact performance of many apparently trivial details.

After this was written, in the August number of the *Australasian Medical Gazette* I read Dr. Jefferis Turner's paper on "Some Practical Observations on the Management of the Diseases of Infancy." I was glad to notice that when dealing with intussusception he was quite in accord with me on the subject of irrigation. His results from this method of treatment have been far better than mine. And I think he is probably right when he says that "perhaps" he has been "exceptionally fortunate," for he can hardly expect to continue to get such a high percentage of cures from injections. I know my average (10 per cent.) from this treatment is far too low, and it is because I have met with so few really early cases. I feel certain that if the treatment by injection is properly carried out in early cases we ought to get very much better results than this.

(Read before the New South Wales Branch of the British Medical Association.)

SURGICAL OBSERVATIONS IN EUROPE.

By R. H. Marten, M.B., Ch.B. (Cantab.), M.R.C.S., L.R.C.P. (Lond.), Adelaide.

If our President had not been so persistent in refusing to take "No" for an answer, I would not have inflicted upon you these few notes. You have so recently heard from Dr. Corbin of the last year's annual meeting of the parent Association, which was held at Oxford, and other matters connected with the profession in England, that I thought it would be better to attempt to recount to you some of the more important innovations which struck me during my recent trip to Europe.

In the first place there has been a tremendous amount of rebuilding of old hospitals; and I saw it stated that if all the schemes of reconstruction which were in contemplation were carried out, at least three millions sterling would be required from the charitable public within the next few years for their completion. My old hospital, University College, has, owing to the munificence of the late Sir Blundell Maple, been entirely rebuilt, and is now a most up-to-date structure. It has a central administrative block with four pavilion systems projecting out at the four angles. The ground floor is occupied by out-patient departments, dispensaries, stores, baths, and students' rooms. The next three floors are devoted to wards, and each floor has its own complete operating block. The top floor is set apart for the pathological department, which includes the post-mortem rooms, bacteriology, pathological chemistry, lecture rooms, and a few infectious wards. The Middlesex Hospital, Charing Cross, St. Mary's, and St. Thomas's have all added large wings, and are all soliciting funds for furnishing the same. Even the wealthy St. Bartholomew's appeals for funds for rebuilding, but so far with no very marked success. King's College Hospital is removing from its old well-known quarters in Lincoln's Inn to the poorer and more populous regions south of the Thames. On the Continent, both at Vienna and Berlin, the well-known huge hospitals are being entirely rebuilt. In the English provinces the same is happening, either rebuilding or building new operating theatres, and some of the finest hospitals in Europe are to be found in the Midlands of England.

The modern operating theatres are much smaller than formerly, but there are more of them; as a rule each full surgeon with his assistant has a theatre to himself. At the London Hospital the operating block has five theatres, with all the necessary instrument rooms, dressing rooms, anæsthetic rooms and sterilising departments, but there are none too many. One afternoon when I was down at that hospital there was a list of 43 major operations to choose from. Owing to the size of the theatres, as a rule no one is allowed in the arena except the actual surgeon and his assistants; even members of the hospital staffs have to take their stand in the places allotted to visitors. The theatres are all built for aseptic surgery, and can be easily hosed down and scrubbed. There are no tiers of seats as in former days. As a rule you see a small, movable, enamelled iron platform as the only accommodation for onlookers, and often there is not even that. Very few students attend operations; in fact, the senior surgeon to one of the medical schools informed me that the fewer students and the less often they turned up, the better pleased were the staff. When the observation area is comfortably full the doors are closed. In most of the theatres you must be surgically clean and wear a sterilised gown. The newest theatre was at the National Hospital for Paralysis, in Queen's Square. The observation area will only hold ten strangers. You do not have to wear sterilised clothes, but if you should happen to cough or, worse still, sneeze during an operation you will at once hear of it, and if you should err a second time in the same direction you had better retire altogether. So much for hospitals.

With regard to *surgical technique*, I only saw one surgeon who professed antisepsis. He was a relative of Lord Lister's, and as far as I could gather had remained at exactly the same point in his technique as on the day when his more illustrious uncle retired from the active practice of his profession. Most of the others call themselves aseptic surgeons, but some of these still made use of antiseptics for their instruments and occasionally for washing out wounds. Although Leedham-Green denies the possibility of rendering your hands free from organisms, I saw very few men using gloves, either in England or on the Continent. They were mostly worn in septic cases, or where it would be necessary to insert the hand into the rectum or the vagina. At St. Thomas's, all the dressers, nurses, and the surgeons wear gloves, either cotton or indiarubber. In cerebral cases Sir V. Horseley always wears indiarubber gloves which extend right up to the shoulders. I saw many abdominal sections started with gloves, but if adhesions were met with the gloves as a rule were thrown on one side, as adhesions are most difficult to separate, even with the modern roughened gloves. On the Continent cotton gloves appear to be mostly in favour, but if the operation happens to be a bloody one the gloves become stiff and need frequent changing.

The hands are scrubbed for five minutes with soap and nailbrush in a hot lysol solution, and afterwards about five minutes are spent on their secondary toilet, with either spirits of wine or some antiseptic in alcohol, or the older method of using a solution of permanganate of potash and oxalic acid is adopted; even if gloves are going to be worn the same care is taken with the toilet of the hands, as the gloves may split or require to be removed. I was not much impressed by the cotton gloves; they are no good for septic cases. The best general get-up was at St. Thomas's, where they wore sterilised gowns, caps, gloves, and indiarubber boots. Sir V. Horseley used a gauze mask when doing cerebral work. I saw this done nowhere but at Queen's Square. The surgeon's mouth was generally washed out with a strong antiseptic solution before an operation was begun. The instruments were, of course, most carefully sterilised, and those surgeons who depended on asepsis entirely had them laid out on dry sterilised towels, handy to the operating table, and from which they were taken by the surgeon himself and not touched by any intermediate hands. Those who used modified asepsis kept their sterilised instruments in trays containing a solution of carbolic acid or some other antiseptic. The patients were brought into the theatre when anæsthetised in sterilised gowns, and after the operation area had been properly attended to, dry sterilised towels were pinned round the area and in some theatres a piece of sterilised gauze was put on from the head to the feet, and then damped with some biniodide in alcoholic solution over the towel free area, and then slit up here with scissors. This piece of gauze was not wasted, as it was afterwards re-sterilised and used for dressings. I only once saw marine sponges used, always gauze swabs or pads, and for all abdominal work a roll of sterilised gauze, about six inches wide and several yards long; this was pinned on to the sterilised towels and used as packing or swabs as required. It was never cut, and rendered the fear of leaving swabs behind a thing of the past. It makes a wonderfully nice packing for cases of all intestinal suture or pelvic work. After use it was washed, re-sterilised and used for dressings. Some surgeons used ordinary linen thread for sutures and ligatures—Nos. 40, 60, 90; others used catgut and silkworm gut. The dressings were generally sterilised gauze or wool. Lockwood uses a sterilised tinfoil next the actual wound. The dressings were not touched for 10 days, when the sutures are removed. Owing to the infrequency of dressings the art of bandaging is almost a lost one. In operating, the surgeon and his principal assistant were the only ones who did any touching of the parts. I have seen a man do a gastro-enterostomy absolutely single-handed except for the anæsthetist. The fewer hands that touch things the better, and most surgeons now use split-eyed needles and thread their own.

With regard to *anæsthetics*, chloroform with a Harcourt's inhaler is a favourite; ether, preceded by chloride of ethyl or gas, or even chloride of ethyl alone, are frequently used. There is no doubt that local analgesia has come to stay, but unless you follow absolutely the directions laid down you will come to grief. I need not repeat them here; they are all in Barker's article in the *B.M.J.* for 1904, page 1682. I saw several major operations under its influence, such as colotomy, orchidectomy, radical cure of hernia, removal of a loose cartilage from the knee. The only case in which it did not succeed was in a case of Whitehead's operation for piles. It should be most useful for men here in the country where they cannot obtain the services of an anæsthetist, and if properly carried out is free from the dangers of cocain. There are two most important points—one is to know your neurological anatomy, and the other is after the injection to wait an hour before commencing your operation. The bleeding is controlled by the adrenalin solution in a most wonderful way. You can inject your fluid, go off to other work, and come to the operation without any worry. I have never seen any bad effects from using Barker's solution.

The most interesting surgery I saw was undoubtedly at the National Hospital for Paralysis and Epilepsy, in Queen's Square, where Sir Victor Horseley is to be seen in his element on Tuesday and Friday mornings at nine o'clock. He generally has a cerebral tumour, Gasserian ganglion, or some spinal operation to perform. The cases are often of the desperate variety, and I have seen more than one operation finished under oxygen and artificial respiration. This is more especially in cases where the cerebellum is involved and there is trouble with the fourth ventricle. The anæsthetic is always chlorolorm, administered with a Harcourt's inhaler. One of the advantages of this inhaler is that you can adjust your face-piece, surround it and cover it up with sterilised towels and gauze, and then give air or chloroform vapour to any extent without removing your inhaler. This is a very important point in brain surgery, as when you are opening the dura mater or removing a tumour you can turn your chloroform gradually off until you come to zero. Horseley nearly always gives a hypodermic of morphia before the anæsthetic is administered; this not only contracts the cerebral vessels but renders a smaller quantity of chloroform necessary.

In removing tumours a large flap of skin is turned down, the incision starting from just behind the external angular process of the frontal bone, curving upwards to the middle line, and then down to behind the apex of the mastoid process. If the cause for opening the skull is an intracranial growth, the whole of the periosteum muscles and integuments are turned down, a trephine hole is made posteriorly, and on removal of a disc of bone the dura mater separator is introduced, and as the bone is not saved the whole area is rapidly removed by very strong cutting forceps, sometimes nearly half the side of the vault of the skull and frequently one-third being snipped away. All bleeding vessels having been treated by passing a threaded needle under them and tying the ligature thus passed, the skin flap is attached again by a few silkworm gut, or horsehair sutures, and after an appropriate dry dressing the patient is returned to bed. After three to five days the anæsthetic is re-administered and the operation of removal of the tumour is proceeded with. The dura mater is opened and is cut away over nearly as large an area as the opening in the skull. If the tumour is cortical it is turned out by means of the fingers; if subcortical, a crucial incision is made through the cortex and the tumour turned out. The most difficult cases I saw were tumours of the cerebellum and in the base of the brain, especially a tumour of the pituitary body, where the moulding of the brain to enable the tumour to be reached was a trying and tiresome time for the operator.

The procedure differs in cases of removal of the Gasserian ganglion. The skin incision is made, but the periosteum is only retracted for about an inch, a trephine hole is made, and then the bone is sawn with an ordinary butcher's saw from the trephine hole round to the front. The temporal muscle, periosteum and skin are not detached, and the bone is forcibly broken across the base by leverage, and the whole side of the skull with its integuments is turned down. The dura mater is then raised and the brain moulded by spatulæ until the ganglion comes in sight. This is removed with the whole three roots attached, and then the whole flap and bone are replaced and there is very little deformity left. A head lamp is always used in these deep operations. The after results are fair, but, of course, catastrophes happen. I have seen the internal carotid ligatured twice on the same day, and this often leads, as does the temporary moulding of the brain, to a transient aphasia. Of course, the great point is the proper localisation of the growth, and the general impression in London is that, although Horseley is called upon to operate for some of the most brilliant neurologists in the world, yet he himself is undoubtedly the best cerebral and spinal localiser. Spinal tumours, tumours situated in the spinal canal and thecoe, caries of the spine, fractures and dislocations of the spine, traumatic paralyses, all lead to the most brilliant surgery, and I would strongly recommend anyone visiting London to attend the National Hospital as often as possible.

(Read before the South Australian Branch of the British Medical Association.)

A NOTE ON VIBURNUM PRUNIFOLIUM.

By Arthur Andrews, M.R.C.S., Albury, N.S.W.

THE following short paper is in no way meant to be an exhaustive statement of the properties and uses of viburnum. I have merely made a few notes of my experiences of the drug with a view to discussion, and, doubtless, a much longer list of cases in which it may be useful will occur to those present.

Viburnum prunifolium is a native of the United States of America, and is there very largely depended on for the relief of all congestive and spasmodic affections of the female generative system. The part of the plant which is used is the root bark, and various extracts and decoctions are obtainable. I have chiefly used the solid extract, or the preparation made by Parke, Davis and Co., in which it is combined with Golden Seal and Dogwood. In this the unpleasant flavour is covered by the use of various aromatics. The odour is strong, but does not appear to be objectionable, even to delicate stomachs.

We often see it claimed that this or that drug will cure everything, and scoff accordingly. In the case of viburnum, I will not say that it will cure all uterine troubles, but can safely affirm that there are few congestive or spasmodic affections of the female reproductive organs or irregularities of pregnancy which will not be materially relieved by its proper administration. To obtain the full benefit of the drug it is often necessary to continue its administration for periods of three or four months. Marked relief is often manifest in a few days, but an occasional case may require fully that time for complete cure. I have used it in many cases and have not found tolerance established, nor any necessity to increase the dose with prolonged administration. No habit is acquired, as with opium, and I have never had to stop its use on account of unpleasant symptoms.

The dose I have generally used is three grains of the extract or one drachm of the liquor sedans, the equivalent of 7½ grains of the bark. This dose may be administered at intervals of half an hour in an urgent case, but for prolonged administration three to four times a day. The following are a few of the cases in which its value is most marked:—

The dysmenorrhœa, which commences with the establishment of the flow, and tends to increase with each period. A typical example, which was under my care last year, will illustrate this. The patient was a strong and otherwise healthy girl of 16. The menses were established at 13, and for the first three periods very little pain was experienced. After this it became more intense with each return, till it compelled her to go to bed for at least the first two days. There was often vomiting, and a generally uneasy feeling was present in the interval about the pelvis. Vaginal examination, being inexpedient, was not urged till treatment had been tried. The usual household remedies of hot baths, hot drinks, and even chlorodyne had been resorted to. The bowels were regular and the general health good, but she was much depressed at the regular recurrence of such severe pain. I put her on drachm doses of liq. sedans three times a day, to be continued throughout the month. The next period occurred a fortnight later, and the pain only lasted half a day. I had instructed her to take the medicine at hourly intervals, if the pain was severe, and she took three doses accordingly. The treatment was continued through the next month, when the period was quite painless. She went on with the medicine twice a day for another month, and has remained quite well since.

In menorrhagia from subinvolution, or in general congestion of the uterus, when curetting is objected to, from fear of an anæsthetic or other cause, a prolonged course of this drug is most useful. The treatment must be assisted, by due local and general means, to improve the general health. Judicious rest, especially at the monthly periods, is important and essential. When the congestion has been due to, or accompanied by, displacement, such as retroversion, one can with this drug often avoid operative measures, the displacement being rectified and the organ supported by a suitable pessary.

I have also often obtained marked relief in ovarian pain, whether at the monthly period or in the interval. In the tendency to nervous storms at and after the climacteric, artificial or otherwise, especially when accompanied by a feeling of weight about the pelvis, I know of no medicine more efficient.

The most important and marked use of the drug is in connection with the irregularities of pregnancy, leading to threatened abortion. Where the habit of aborting has been acquired, and there is no specific history, whether it be due to fissure of the os or other cause, if taken early and the treatment pushed, a favourable result may be expected.

In all these cases it has displaced other drugs in my practice, and I feel confident that, if the patient wishes and will give it a fair trial, a favourable issue will result in almost every case where the fœtus is still living at the commencement of treatment.

Such a case as the following will illustrate this. Mrs. ——, aged 36. Married seven years. First child stillborn after a very tedious labour six years ago. Two miscarriages at short intervals. Emmet's operation for extensive fissures in os. Delivery at term somewhat tedious two years ago. Recurrence of fissure unilaterally. Again pregnant five months ago. Much pelvic uneasiness, followed about the sixth week by free hæmorrhage, relieved by a few days' rest, but on resuming household duties the loss returned. Viburnum was given every three hours, and she was kept in bed four days. Three weeks later more severe loss occurred while on a journey by train. After some trouble she was induced to again take to her bed, and viburnum was given regularly every four hours. The loss gradually ceased, and she was kept in bed ten days, or six days from the cessation of flow. Instructions were given to avoid quick movements and strains, and she is now performing her household duties with comfort, being a little over the fifth month.

Many other such cases could be related; but I have no doubt that those present have had similar experiences. For myself, I may say that I have almost entirely given up the use of morphia and other drugs, and rely on viburnum alone. I have seldom found it fail if commenced early, and where it does fail you will generally find that either the fœtus is dead, or the patient is not desirous of carrying it to term. I have commenced its administration, in cases of habitual abortion, as soon as the patient knew she was pregnant without waiting for hæmorrhage, and with good effect. In cases of scanty menstruation, especially when accompanied by pain, I have found it most useful in restoring the regularity and quantity of the flow. I have used it in cases of menorrhagia from the presence of fibroids, frequently with most beneficial effect.

In conclusion, I would again refer to its harmless nature, experience showing no ill effects, but only increasing one's satisfaction with it. To those who have not used it, I would say give it a thorough trial, and you will never give it up.

(Read before the Border Medical Association.)

AN UNUSUAL CASE OF HYDATID OF THE LIVER.

By T. A. Wilson, M.B., Creswick, Victoria.

A CASE of hydatid of the liver to which I wish to direct your attention possesses some features of more than passing interest, which have prompted me to bring it under your notice.

On June 25th last I was called to see a lady, *æt.* 63, who had just returned from Melbourne, where she had been on a visit, and had suddenly taken ill four days previously. The onset of her illness was typical of an influenzal attack, followed by bronchitis, and later by jaundice.

When I first saw her her temperature was 103°, pulse 110, respirations 30. She had a very troublesome cough, with white, frothy expectoration, and furred tongue; had some vomiting previously, but this had now stopped; flatulence and constipation; skin and conjunctiva deeply jaundiced; urine mahogany colour, with bile reaction. Both lungs gave fair percussion both anteriorly and posteriorly, but abundant sibilant rhonchi and bronchial râles on both sides. Heart sounds clear, distinct, and perfectly regular. The liver dulness was increased downwards and to the left side; a rounded prominence, moving with respiration, reached to the umbilicus. The temperature gradually receded, and was normal on July 6th, or 12 days after she first came under observation. On July 1st the sputum changed from a white frothy nature to a bile-stained and more fluid character, and at the same time began to increase in amount. This increase I at first thought to be due to the action of potass. iodide, which she was taking in an expectorant mixture, and the presence of the bile I attributed to the jaundice, thinking it might be bile eliminated by the bronchial mucous membrane. On July 10th there was a marked increase in the amount of expectoration, reaching 11 oz. by measure in the 24 hours. The physical signs in the chest at this time suddenly became peculiar and confusing. The whole of the trouble in the right lung had cleared up, and there was a normal percussion note and clear vesicular murmur over the whole of the right side of the chest. On the left side, the base of the lung had become dull, shading off from absolute dulness at the costal margin posteriorly to normal at the angle of the scapula, and passing round under left breast to normal at the junction of rib cartilages with lower end of the sternum. This portion of the base of the left lung gave the physical signs of œdema of the lung, with a bubbling of fluid in the bronchial tubes in the higher planes of the same lung. The position and increase of the liver dulness was so far unchanged.

Not being satisfied in accounting for the increase in the amount of exqectoration, I forwarded a specimen of it to the University for examination, stating that I thought it was probably from a hydatid cyst of the liver which had ruptured through the diaphragm and lung tissue into a bronchial tube. The report received was "examination negative."

On July 17th there was passed by the bowel a piece of what looked like portion of the cyst wall of a hydatid, measuring about 4 in. long by 2½ in. wide. This was sent to the University for examination, and the report received was, "Typical laminated hydatid membrane."

The position now was that one had to deal with a hydatid cyst in the liver which had ruptured both into the lung and the alimentary canal, and it was necessary to decide whether it was advisable to operate or leave the process of evacuation to nature. As there was a double route by which the parasite was being expelled, I decided to await events, holding operative interference in reserve for the possible future development of complications.

The patient now could only lie on the left side, and this fact, together with the physical signs being on the same side, pointed to the left lung as being the one through which the contents of the cyst were being discharged, and the portion of the cyst passed by the bowel being separate and distinct from, and not incorporated with the fæces, and not having apparently been acted on by the digested ferments, led me to infer that the second route selected for evacuation was through the transverse colon.

On July 20th, or three days after the first piece of cyst wall was passed by the bowel, there was an evening rise in the temperature to 101·4°, the temperature having been practically normal for the previous fortnight. This rise was due to some indiscretion in diet, though I at first feared it was due to infection of the hydatid cavity by bacteria from the bowel. The temperature, however, soon came back to normal, and only once again, on the evening of July 24th, did it rise above 100° during the subsequent course of the illness.

The stools, which previous to the discharge of portion of the endo-cyst had been clay-coloured, now became natural in appearance, and though all were carefully examined, contained no portion of the cyst wall until August 1st, when another piece about the same size as that passed previously was found with the stool. From the time the first piece of endo-cyst was found in the stool there was an increase in the amount of expectoration, as much as 18 oz. in the 24 hours. Further portions of cyst wall were passed by the bowel on August 3rd, 7th, and 11th.

It was noticed that for some days before each piece of membrane was passed that there was invariably an increase in the severity and persistence of the cough and an increase in the amount of expectoration. This increase I can only explain on the hypothesis that as each piece of membrane was being evacuated it would become stuck for a time in the opening formed at the point where the endo-cyst had become adherent to the transverse colon, and the fluid secretion in the cavity would be kept back, and not escaping into the bowel would be coughed up, thus increasing the amount of expectoration and the severity of the cough. At one such "blocking up" the amount of bile-stained fluid expectorated amounted to 42 oz. in the 24 hours.

A piece of membrane was again passed on August 17th, and the expectoration gradually eased off, and for a period of six days stopped altogether. It then came on again for two days, and on August 29th another piece of membrane was found, and after three days more the expectoration of bile-stained fluid ceased and did not again recur.

There had been a steady contraction in the epigastric extension of the liver dulness, but for some two or three days preceding September 8th the liver dulness was again increased; but on this date a further piece of membrane was passed, followed by pieces on 11th, 12th, 19th, and 22nd September. After this the liver dulness gradually receded and the patient made steady progress towards recovery, though she complained of a dragging sensation and some uneasiness between the umbilicus and sternum, which still continues and is aggravated by walking or remaining for any length of time in the erect position.

The points worthy of notice are :—(*a*) Absence of symptoms before the onset of influenzal attack. (*b*) Aseptic condition of the cavity throughout. One would have expected an infection from the bowel, but I believe this was prevented by the free secretion of bile into the cyst cavity. (*c*) Barren nature of the cyst. There were no daughter-cysts coughed up or passed by bowel. (*d*) During 48 days there was coughed up a total measured amount of nearly 38 pints, to say nothing of what was expectorated on to handkerchiefs, etc. As this gives an amount of nearly 16 oz. per day it will be readily understood how distressing a feature the cough was during the course of the illness. (*e*) The dragging and uneasiness which were left after evacuation of the cyst. This I believe to be due to the extensive adhesions which must have formed between the liver and bowel. This unpleasant symptom, I might further state, is increased by flatulence. It might be possible to remove this distress by operative interference, but I think one would require to be prepared to resect portion of the colon. The patient, however, declines to have anything done.

(Read before the Ballarat Branch of the British Medical Association.)

REVIEWS AND NOTICES OF BOOKS.

MUCOUS MEMBRANES, NORMAL AND ABNORMAL, INCLUDING MUCIN AND MALIGNANCY. By William Stuart-Low, F.R.C.S.. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1905. Price, 2s 6d net.

In this small volume, which is an expansion of a lecture delivered at the Polyclinic College, the author prefaces his main argument with an account of the anatomy, physiology and pathology of the mucous membranes. He lays stress upon the fact that mucus is not always such a noxious substance as it is commonly considered to be, but, on the contrary, he believes it plays an important part in the economy. He refers to some interesting experiments performed by himself some years ago, which show that mucus possesses bactericidal properties, since bacteria cease to grow in culture media when mixed with mucin. Some researches of Arloing on this subject support the same view. He draws attention to the frequency with which gastric and intestinal disturbances are associated with abnormal conditions of the mucous membranes of the nose and pharynx, and how improvement is often effected in these cases by the administration of mucin internally as well as the local application of it by spray.

When he comes to speak of mucin and malignancy, we are not disposed to agree with his conclusions without some further proof than he has adduced. Nevertheless, he has quoted some interesting facts, namely, that malignant growths develop *par excellence* in sites where mucous glands are defective or absent, and he points out that in a large number of cases of malignant disease of the mouth, nose, pharynx and larynx which have come under his observation there has been a history of syphilis, of excessive tobacco smoking, and also of an excessive consumption of salt—all these being factors in causing a diminution in the secretion of mucus, or at any rate leading to a perversion of the normal secretion of these membranes. He is disposed to regard these as powerful antecedent factors in the development of malignant growths. The volume is interesting, not only to the general practitioner, but also to the specialist in diseases of the nose and throat, as he quotes several cases illustrating the benefit derived from treatment based upon his pathological conceptions.

A MANUAL OF PERSONAL HYGIENE: PROPER LIVING UPON A PHYSIOLOGICAL BASIS. By American authors. Edited by Walter M. Pyle, A.M., M.D. Second edition, revised and enlarged. Philadelphia and London: W. B. Saunders & Co.. 1904. Melbourne: James Little. Price, 6s 6d.

One is so accustomed to be nauseated by inaccuracy, bad taste and *reclame* in *soi-disant* medical books intended for the perusal of the lay public that it is most refreshing to meet with a volume of this class that one can thoroughly recommend as being at once reliable, practical, and comprehensive. "A Manual of Personal Hygiene" is divided into a number of sections dealing with the various departments of personal hygiene, each of which is contributed by a practitioner of eminence in his own subject. Sound common-sense, combined with moderation in the expression of views, and the avoidance of doubtful or debatable subjects, characterises the book throughout. If there must be any adverse criticism, it may perhaps be said that parts of some sections, especially that on the eye, are rather too technical for the laity; but it is evident that the book is intended for the use of the educated classes. For the general practitioner who has the care and advising of the everyday life of his patients on his conscience, the work will be found very useful. The section on physical exercise and home gymnastics is particularly practical and contains much sound advice.

A HANDBOOK OF INTESTINAL SURGERY. By Leonard A. Bidwell, F.R.S.C., Surgeon, West London Hospital; Lecturer on Intestinal Surgery, and Dean of the Post-Graduate College, etc., etc. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1905. Pages xii. + 167. Illustrations, 91. Price, 6s net.

This little volume aims at giving such a precise description of the commoner intestinal sutures that an inexperienced surgeon may readily practise the various methods on dead intestine before performing an anastomosis on the living subject. The book is divided into 10 chapters. The last two deal with "The Preparations before Abdominal Operations" and "Treatment after Abdominal Operations," respectively, and will be found very useful. Nearly all the various sutures used in abdominal surgery are clearly figured, as well as the different methods of effecting an anastomosis between the coils of intestine, and between small intestine and stomach (both anterior and posterior gastro-enterostomy). The book appears to be admirably suited for the purpose for which it was been written, and is worthy of a place on every surgeon's bookshelf. The paper, type, and illustrations reflect credit on the publishers.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH SEPTEMBER, 1905.

THE AUSTRALASIAN MEDICAL CONGRESS.

THE seventh session of the Australasian Medical Congress, which was held at Adelaide in the early part of this month, exceeded all previous gatherings of this nature in the number of members enrolled and in attendance, in the good work accomplished, and possibly in the hospitality which was so freely extended to the visitors to the city of Adelaide. We must congratulate the profession in that city on their recommendation for the position of president of the Congress so able and distinguished a confrère as Professor STIRLING, who by his unwearied efforts, by his geniality and excellent administrative and organising capabilities, discharged his important duties in a manner which commended itself to all. Too much praise cannot be given to the secretary, Dr. POULTON, who, by the way, was the originator and secretary of the first Intercolonial Congress held in Adelaide in 1886, and to the associate secretary, Dr. GUNSON, for their energy and zeal and unfailing courtesy to all, which tended so largely to make the Congress the success it was. Our hearty thanks are also due to His Excellency the State Governor of South Australia, Sir GEORGE LE HUNTE, and Lady LE HUNTE for their generous hospitality in entertaining the officials and members of Congress, and for their patronage and presence at all the public entertainments held in honour of the meeting. The Mayor of Adelaide also extended a hearty welcome to the visitors, and did all in his power to make the Congress successful. Lastly, but by no means least, our thanks are specially due to the ladies who provided so many and varied private entertainments for the members of Congress and their wives, and which helped so largely to make the Congress successful from a social point of view. One of the greatest advantages of attending a gathering of this nature is the opportunity afforded of meeting both professionally and socially our fellow practitioners from the other States, so that we come to know personally those who have previously been known to us only by name.

The inaugural address by the President, which we publish in another column, was delivered to a very large audience, both professional and lay, who showed their appreciation by frequent rounds of applause. This address has possibly been equalled but certainly can never be surpassed in the breadth of knowledge displayed, and in the simplicity of the language used in the discussion of abstruse scientific questions. Professor STIRLING dealt with the advances made in surgery by the application of the principles of antisepsis and asepsis, and passed on to show how wide was the influence exerted on all surgical and medical practice by the apparently simple discovery of the explanation of the process of fermentation by PASTEUR. He then showed that in the study of these principles there was a wide field open for investigation and therapeutic application.

In a powerful and eloquent passage he referred to the revival of quackery and occultism under the guise of "Christian Science," and showed how largely the important influence of mind over body was utilised by the quack in dealing with his victims. He pleaded for a fuller recognition on the part of the profession at large of the important subject of mental therapeutics, which at present finds no place in the medical curriculum. Let us hope that his weighty words and his advice will not fall on deaf ears.

THE SECTIONAL ADDRESSES AT THE CONGRESS.

It is doubtful if the *best* scientific work is ever accomplished at a congress, yet no one can deny that at the recent meeting of the Congress in Adelaide a large amount of useful work was done. The addresses delivered by the presidents of the different sections were all excellent, and it is almost invidious to single out any one for special reference. We think, however, that the address delivered at the opening of the Section of Pathology by Professor **Welsh**, Professor of Pathology in the Sydney University, on "Recent Research on the Pathology of Cancer," and that delivered by Mr. **Frederick Bird**, of Melbourne, on "Syphilis of the Abdomen," were models.

The sectional presidential addresses, in our opinion, should be technical and not popular, and in selecting the subject of cancer, which at the present day looms so largely in the public eye, we think Professor **Welsh** did excellent service. He not only gave in technical language an exhaustive review of our present knowledge of this subject, but also led up to the important practical conclusion that at present no hope can be entertained of there being any cure for cancer except early and free excision. It is somewhat discouraging to note that all the research which has been carried out in recent years towards the elucidation of the problem of malignant growths tends only to show that cancer is incurable by any means other than surgical; and yet it is consoling to know that in the early and free excision of a malignant growth there is reasonable hope of complete cure. We hope that the public attention, which has now been so emphatically drawn to this subject, will induce the victims of this disease to submit to operation at the earliest possible moment, and not lose precious time in playing with so-called cancer cures. We hope our judicial friend in a neighbouring State will read, mark, learn and inwardly digest Professor **Welsh**'s address, and cease to lend his influence to support the unbounded arrogance and assumption of a quack cancer curer.

Mr. **Bird**, in addressing the Surgical Section, took up a special subject, which must have been to a large extent new to many of his hearers. The protean manifestations of syphilis in skin, bone, and nervous system are well known, but we do not so readily assign syphilis as a cause of some abdominal tumours and infiltrations. But the operating surgeon who is called to examine and operate upon various obscure abdominal diseases is the one most likely to meet with that class of syphilitic manifestations within the abdominal cavity to which Mr. **Bird** referred. The impression one gathers from this address is that either Mr. **Bird** has been unusually fortunate in seeing so large a number of cases of this kind, or that many surgeons have possibly overlooked syphilis as a cause of those obscure abdominal conditions which have been variously regarded as simple chronic inflammatory or tubercular in origin. Now that attention has been directed to this subject, and the good effect to be obtained from the use of anti-syphilitic remedies emphasised, we shall hope to hear further reports of similar cases in the practice of other surgeons. But here again it is necessary to warn against the loss of precious time in the administration of anti-syphilitic drugs to patients suffering from obscure abdominal diseases, in the hope that they are syphilitic in origin, and so, perhaps, the opportunity for successful surgical interference is lost.

The addresses delivered in the other sections were all interesting and instructive, and we hope to refer to some points raised in them on a future occasion.

THE MONTH.

The Milk Delivery in Australian Cities.

At the recent session of the Australasian Medical Congress a resolution was passed protesting against any action which might have the effect of interfering with a bi-daily delivery of milk in Australian cities, inasmuch as any such action would be seriously prejudicial to the public health. This resolution is a timely one since an action is now pending in the New South Wales Arbitration Court between the milk companies and master dairymen, and their employees. If the employees are successful in their claim, there will be only one delivery of milk on two days of the week, and in view of the approach of summer, it is not pleasant to contemplate the result of such an arrangement on the health of infants and invalids who are so largely dependent upon milk as a staple article of diet. It is impossible to keep milk perfectly pure and sweet for more than a few hours in the summer weather, and the bi-daily supply of fresh milk is an essential factor in the prevention of infant mortality.

Milk Adulteration.

We have heard a good deal recently about the supposed innocuousness of the addition of preservatives to milk, and interested parties have scorned medical men who have ventured to express an opposite opinion. In a recent number of the *Lancet* are recorded the following results of some experiments on animals, which, so far as they go, entirely uphold the contention of Dr. Ashburton Thompson and his colleagues in their contentions:—Five kittens were fed on milk containing 80 grains of boric acid per gallon (equal to $\frac{1}{7}$ of $\frac{1}{100}$). In four weeks all were dead. Five kittens were fed on milk containing 40 grains per gallon; two died in the third week, and the rest in the fourth. Five control kittens received pure milk; none died. The diminution in weight in the animals receiving the boric acid milk was very marked, and brought into significant relief by comparison with the increase in weight in those fed on the normal fluid. It was seen in a day or two that the kittens treated with the boric milk were losing appetite. iarrhœa, inactivity, and depression followed, then rapid emaciation and death. With milk containing formalin similar results were obtained. Of five kittens treated with milk containing one part formaldehyde in 50,000 of milk, three died in five weeks; the average increase in weight was 177·6 grammes, compared with 251·1 grammes of four control kittens treated with normal milk; with milk containing $\frac{1}{25000}$ of formaldehyde, another series showed an average gain of 196·6 grammes, as against 325·7 grammes gain by kittens fed on normal milk. Of a third lot treated with milk containing one part of formaldehyde in 12,500 of milk, two died in the fourth week; the average gain in weight was only 96·4 grammes, against 312·5 grammes with the "controls" fed on normal milk.

Medical Examinations in Life Assurance.

In the course of an address before the Insurance Institute of New South Wales last month, Mr. Richard Teece, the Actuary to the Australian Mutual Provident Society, traced the growth of the practice to insist on a uniform medical examination of those wishing to insure their lives. From about the end of the first quarter of the last century such examinations became general, and as time went on became more searching. The inquiries into the personal and family history of proponents also became more extensive and pertinacious. The medical examination came to be regarded as the sheet anchor of the life office. There were other influences operating in an opposite direction. Life assurance became an integral part of the commercial life of the community; it entered into many business transactions; it spread to the lower and less robust and well-to-do classes of the community. In conclusion he expressed the opinion that "the practice of dispensing with medical examinations was imprudent and fraught with danger to the best interests of life insurance, none the less real because its presence might be long concealed." No doubt these remarks are *apropos* of what has been a growing practice in recent years in several of the life offices in England and in this country to dispense altogether with a medical examination of proponents for life insurance for amounts even up to £500. Now that Mr. Teece has expressed so definite an opinion on the value of a medical examination, we hope his society will see the necessity of paying appropriate fees for these examinations, and will not attempt to economise at the expense of their medical examiners.

Hospital Maintenance in Queensland.

The Hospitals Bill which has been introduced into the Queensland Parliament, and the provisions of which we published in outline in our last issue is meeting with strenuous opposition in Brisbane. At a conference of local authorities of Brisbane and suburbs held at the Town Hall last month resolutions were passed condemning the bill, as an inequitable and unjust tax upon landowners since it imposed a further burden upon the local authorities, and meted out differential treatment to landowners in the metropolitan district, inasmuch as while the burden of maintaining the hospitals was cast upon them, they in common with others also contributed through the consolidated revenue to other hospitals in the State ; and, further, that while donations and legacies to other hospitals in the State were to be endowed by the Government, those given to the metropolitan hospitals would not be endowed. Another resolution was—"That if a fair trial were given to the scheme submitted to the Government by the Hospitals' Aid Association, the proposed legislation would be unnecessary." The various speakers took strong exception to the provisions of the bill, which was declared to be class legislation. The bill would dry up private charity and legacies, and would stop all private subscriptions. These objections appear to be well founded, and we are disposed to agree with the opinions expressed in a leading article in the *Brisbane Courier*, that the simplest and best way out of the present difficulty as regards hospital maintenance in Queensland would be for the Government to restore the subsidies to their original amount, in the hope that better times are in store in the future, and that the public, realising the necessity for contributing more freely than they have done in the past, will not suffer hospital committees to be again placed in such an unenviable position as the Brisbane Hospital Committee was recently placed. We hope that Mr. Airey and his Cabinet will give heed to the warnings which have been given as to the probable results of the proposed legislation if it be carried through in its present form.

Female Medical Students and the Study of Anatomy.

At a recent meeting of the Melbourne University Council the question of the accommodation for female medical students while engaged in the study of practical anatomy came up for discussion. Professor Allen pointed out that owing to the female students occupying a separate room they were at a disadvantage, and expressed a decided opinion in favour of the male and female students using the same dissecting room, but the women, in view of opinions being expressed that there was impropriety in the practice, did not care to adopt it. Dr. McFarlane said he has strongly opposed to such a course, and though it was followed in other medical schools, he did not think Melbourne should follow their example. We think that if women are to be admitted to the medical curriculum at all, they must be prepared to work alongside of men students throughout their whole course, and any suggestion that they should receive separate instruction is based on false sentiment. The two sexes must meet in the post-mortem room and in the hospital wards, and if they must mix in the later part of their curriculum, there can surely be no objection to such a practice when they are engaged in the study of anatomy.

Owing to the great pressure on our space this month we are obliged to hold over several articles, and also this month's instalment of the "Review of Current Medical Literature."

Sanatorium for Women in New South Wales.—A meeting of ladies, convened by the Lady Mayoress, was held in the vestibule of the Town Hall on September 18th, for the purpose of discussing necessary steps to take to raise funds for the purpose of converting Thirlmere Home, in the southern district, into a sanatorium for women suffering from consumption in the early stages. There was a good attendance. Sir Philip Sydney Jones said good results had been achieved from the men's sanatorium on King's Tableland, and it was desired that the same provision should be made for girls and women who between the ages of 5 and 35 years were, he said, more subject to the disease than men. The Thirlmere Home, purchased at a cost of £3000, could be made an excellent institution for women, and to be up to date it would require the services of a resident medical officer. It was decided to hold a large *fête* in the Exhibition Building during the last week in November ; that steps should be taken to arrange for special collections in the churches, and that the Mayors of the various municipalities should be written to asking for their co-operation. The ladies present formed themselves into a committee, with power to add to their number. The Lady Mayoress was appointed president of the committee. Lady Harris, Mrs. Trindall, Mrs. Hugh Dixson, and Miss Margaret Harris were appointed vice-presidents. Mrs. Nosworthy was appointed hon. treasurer, and Mrs. Thompson hon. secretary. Subscriptions amounting to £26 were notified, including £10 10s each from Mrs. William Harris and Mr. J. C. Williamson, and £5 5s from Mrs. Kelly, Mount Druitt.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE usual monthly meeting of this Branch was held at the Royal Society's Rooms, Elizabeth-street North, on Friday, August 25th, at 8.15 p.m. Present: Dr. J. L. Beeston, president, in the chair, and about 35 members. Visitor: Mr. Hamlet, Government Analyst.

The minutes of the last meeting were read and confirmed.

The PRESIDENT announced the election of Dr. A. E. Finckh, Sydney Hospital, and the nomination of Dr. Wm. Manson, Gundagai.

Mr. C. P. B. CLUBBE read a paper on the " Diagnosis and Treatment of Intussusception." (See page 459.)

Dr. HINDER mentioned two cases which had occurred in his practice some years ago which illustrated the pressure which could be exerted by injections and how deceptive the results of injections may sometimes be. In the first case the intestine projected some six inches beyond the anus; this was reduced by injection, but the intussusception recurred. Injection was again resorted to, and again it was reduced and the child got quite well. In the second case the intussusception was apparently completely reduced by injection, and the child appeared quite well for some hours; but at the end of 12 hours the child presented the signs of unreduced intussusception. He opened the abdomen and found the intussuscepted bowel tucked up under the liver. It was tightly constricted and took 20 minutes to reduce. The bowel was split, and the child died. Shortly afterwards he had two similar cases, in which it took from 20 to 30 minutes to reduce the intussusception; the peritoneal surface of the bowel split, and both died. He was now satisfied that if the intussusception was severe it was better to resect the last part and suture the ends of the bowel. Cases in which he had done this had recovered. He agreed with Dr. Clubbe that the œdematous condition of the bowel hindered the reduction, and he had found that by squeezing the intussusception gently for five minutes the œdema was diminished and reduction was then easily effected. He also agreed that injection of the bowel before operation was a good procedure, and offered a better chance of effecting a reduction. As regards suturing the abdominal wall, the stitches were sometimes removed too soon. Silkworm gut sutures should be left in for from 10 to 14 days, and after they were removed the abdominal wall should be supported by strong strapping.

The PRESIDENT said Dr. Clubbe's paper was a most valuable and practical one, and he was glad that stress had been laid on the importance of listening to the mother's story. This should put them on the track of the diagnosis. There might be difficulty in diagnosing intussusception from colitis, but in the latter condition the onset was gradual, and there was always a trace of fæces with the blood and mucus from the bowel. Another symptom he had noted was the patency of the rectum and anus in intussusception. He had found squeezing of the intussusception assist in the reduction, especially of the last part, and agreed that œdema was the cause of the difficulty in reduction. As regards the closure of the abdominal wound, he believed in through-and-through suturing. Suturing by layers took too long, and one wanted to avoid shock as much as possible. He had found dressing with a layer of gauze and collodion satisfactory.

Dr. E. H. BINNEY agreed that early diagnosis was most important, and early diagnosis would result in the reduction of the mortality to that of simple laparotomy. One point in diagnosis he would like to refer to. After hearing the history of the case from the mother, and making an examination of the patient, one might be in doubt as to blood having been passed from the bowel. Under these circumstances it was a good thing to make a rectal examination, not for the purpose of finding any mass in the rectum but with the object of inducing the child to pass a motion or flatus. If blood was then passed and no motion, one would have confirmatory evidence of intussusception. If flatus were passed, then there was no intestinal obstruction. With regard to irrigation, Mr. Edmund Owen emphatically condemned that method of treatment, since pressure was thus exerted in all directions, and there was danger of rupturing the colon. If the intussusception were so tight that it could not be reduced by injection the water would return along the sides of the nozzle of the syringe, and that would be a warning to desist. As regarded the details of the operation, he had been able to reduce a large part of the intussusception intra-abdominally in simple cases, and that left a smaller part of the intestine to be drawn out of the abdomen and exposed. In Dr. Clubbe's last 50 cases the mortality was only 24 per cent., and he felt sure that that mortality would be still further reduced if the diagnosis were made earlier.

Dr. VALLACK (Bowral) referred to the difficulty often experienced in making an abdominal examination in children. He had found the following method an advantage. If the child were sat up on its mother's knee with the head and thorax bent forward, the surgeon should stand behind the patient and place the thumbs behind the loins and the fingers over the front of the abdomen. By that means the abdominal muscles were relaxed and a satisfactory examination could be made. He also referred to the period of calm which frequently ensued in cases of acute abdominal disease, and which was most deceptive and dangerous, as it frequently led to delay in operating. Opium or morphia should never be given, but a hypodermic injection of atropine was useful, especially as an aid in diagnosis, since that only relieved the pain of muscular spasm, but did not relieve the pain of peritonitis or strangulation. With regard to the site of the incision, he considered it most important to make it in the middle line, for then the nerves to the rectus muscle were not cut. If the nerves were cut, a certain amount of atrophy of the muscles ensued, and so muscular weakness of the abdominal wall would result. Then, in many cases, operation had to be done hastily, before there was time to properly prepare the surface of the abdomen. He had advocated and now always adopted the method of stitching sterilised towels to the margin of the wound, and the intestines could thus be turned out upon them without risk of infection. This procedure only took three or four minutes.

Dr. WADE said the main point was the value of irrigation. Looked at from the point of view of cure, one must say that in the majority of cases that method of treatment must fail, since the intussusception took place at the end of the small intestine, and it was not possible to reach this by injection; but by using irrigation at the time of operation a large part of the intussusception could be reduced, and this would lead to less handling of the intestine and, so, less shock. The cause of death in most of the cases after operation was shock, and that was brought about in two ways. First, by the anæsthetic. In no condition was a good anæsthetist more urgently needed, since there was great danger of cardiac failure when the abdomen was opened and the intestines were handled. Secondly, it was due to the manipulation of the intestine in reducing the intussusception; previous irrigation reduced the amount of handling of intestines necessary. The operation should be done in the shortest possible time, and he thought the incision should be made directly over the site of the mass unless the child were in good condition.

Dr. **Gordon Cribbe** (Orange) said an important point not touched upon was the prognosis to be given in cases not operated upon. If operation were refused, the surgeon often condemned the patient to death, but that prognosis was often proved incorrect by the patient passing gangrenous gut from the bowel, and so was relieved.

Dr. **J. A. Dick** said that in the diagnosis of ileocolitis from intussusception, it was well to put the finger into the rectum, and if bile were found the former condition could be diagnosed; if it were absent, then an intussusception existed. He thought from Dr. Clubbe's statistics recently published in the *British Medical Journal* that he had succeeded in his aim of teaching practitioners to make an early diagnosis of intussusception.

Dr. **Clubbe**, in reply, stated that he had known of one case of spontaneous recovery which occurred in his practice several years ago. He thought Dr. Vallack's suggestions valuable. In reply to Dr. Binney, he had found irrigation useful; he always used it in every case and had never seen any ill effects. With regard to the President's remarks, he thought they ought to aim at diagnosis before the passing of blood occurred at all. The sooner blood appeared, the more severe the nipping of the intestine and the greater urgency for operation. Unless he was absolutely certain that the intussusception had been completely reduced by irrigation, he proceeded to operate. It was safer to follow this course, even if sometimes one found afterwards that the operation was unnecessary.

The remaining business was postponed till next meeting.

Queensland.

A **general** meeting of the Branch was held on Friday, September 1st, 1905.

Owing to the absence of a number of members at the meeting of Congress the attendance was much smaller than usual.

The minutes of last meeting having been read and approved, the **Secretary** announced the election of two new members.

The report of the Ambulance Committee was postponed for consideration at a fuller meeting. That of the Dengue Committee was submitted, with the recommendation of Council that it should be read at the Medical Congress and published in the Transactions of Congress, in the *A.M.G.*, and in the *Journal of Tropical Medicine*.

On the motion of Drs. **Hawkes** and **Woolrabe**, this was passed.

Dr. **Wield** proposed a vote of thanks to Dr. Turner, the convener of the Dengue Committee, whose personal efforts and self-sacrificing energy in collecting, arranging, and sifting the dry details of cases and statistics had had so much to do in producing such an admirable report.

This was carried with acclamation.

In speaking to this motion, Dr. **Hirschfeld** asked the Queensland correspondent to inquire if it were not possible that some 20 reprints of articles communicated to the **Gazette** might be sent to the author instead of the usual three copies of the whole magazine.

The discussion of Dr. Turner's paper on "The Management of the Diseases of Children," followed.

Dr. **Hirschfeld** opened the discussion. He thought the remarks on the patent foods and their inferiority to modified fresh milk were much to the point. He considered Dr. Turner's strictures on opium too severe, and was sure that in some cases it was not well to be too timorous in prescribing it. Also, he had great faith in the effects of meat juice, but it must be freshly prepared in small quantities several times a day. He agreed that "polypharmacy is bad," and deprecated the external use of boracic acid in extensive intertrigos lest poisoning by boracic acid should occur.

Dr. **Woolrabe** advocated the giving of pure cold water as a drink to young children and infants.

Dr. **MacDonald** asked if there was any way of modifying "mother's milk." He instanced a case where a baby lived for eight months on barley-water or barley-jelly alone, and remained fat, healthy, and free from scurvy.

Dr. **Hawkes** saw in America a good substitute for mother's milk in dried milk. Some cream had been removed and the remainder passed through heated steam rollers, desiccated, and collected as a dry powder. This he thought might do well where fresh milk could not be obtained. He had been impressed by Dr. Turner's success with inflation in intussusception cases. His own experience of inflation was a run of failures. The chances of its doing good depended on the situation of the intussusception. If that were ileo-cæcal, he thought that few of over a few hours' duration could be reduced. It was difficult, too, to be sure when a case was fully reduced. He raised the question of how long it was safe to wait before operating.

Dr. **Halford** recalled Behring's theory that tuberculosis might enter the system early and rest there for many years before the development of phthisis. He considered that only very intimate contact with a phthisical subject led to infection direct. Where the mother's milk was not available he advocated the procuring of a healthy wetnurse as of the first importance. He believed human milk possessed immunising properties that other milks did not. Some experiments he had made with meat from a butcher's shop showed that even on the surface bacterial growth was for a time slow, if not actually non-existent. Speaking of drugs, he recalled cases of strangury arising from moderately large doses of salol. He asked, "What constituted phimosis?" and deprecated circumcision or dilatation of the prepuce in cases where no ill symptoms existed.

Dr. **Wield** congratulated Dr. Turner on his choice of a paper on such practical and everyday topics. He emphasised the necessity of boiling the milk, were it only to free it from material pollution. He had found the history of many a beginning of gastro-enteritis to be this: The mother suddenly finds her milk begin to cause the baby to retch and have curdled motions; she resorts to patent foods or cows' milk, etc., without any improvement, and at length seeks medical advice; if improvement follows and the breast again is tried, the milk again proves indigestible. On inquiry in such cases some dietetic or other error may or may not be discovered. He thought that such cases opened up a field for investigation; that the first method of treatment should be such as would remove the fault from the infant's natural food. As regarded tubercle, he considered it marvellous how few children of a phthisical mother became tubercular if they survived the first few months. Minute doses of calomel in gastroenteritis he considered almost a specific for that complaint, and had found that they could be continued with benefit for periods of several weeks without producing mercurial poisoning. Possibly, in some cases, it antagonised effects of a syphilitic constitution.

Dr. **Robertson** said the discussion had proved how interesting the paper was. He thought it almost impossible to teach the cleanly milking of cows. He thought in many cases dietetic care on the part of the mother was necessary to produce a suitable milk. Sometimes when that milk tended to curdle, a few teaspoonfuls of barley-water given to the baby before its meal proved a sufficient remedy. He agreed with Dr. Halford on the immunising power of mother's milk. In cases of infantile diarrhœa he believed in fairly strong injections of permanganate of potash. In certain cases—lienteric and choleraic diarrhœa—opium was undoubtedly most useful. He had used water pressure in several early cases of intussusception with marked success. He did not advocate circumcision, except to palliate definite symptoms.

Dr. **Turner**, in reply, said he had expected some criticism, but had not expected such full discussion of his paper. He had used salol for some time without noticing strangury, or possibly had put it down to the loss of fluid by diarrhœa. Opium was dangerous in acute cases, especially if prescribed in repeated doses without accurate supervision. In some chronic cases it did good. He had never continued minute doses of calomel for such prolonged periods as Dr. Wield advocated. Meat juice he used in the cooler part of the year, but in the summer often found it disagree badly. The subject of modifying the mother's milk was too large to deal with in this reply. He was not too sanguine as regards dried milk. It occurred in several of the patent foods, and had the advantage of being aseptic. As regarded intussusception, probably the operation is more suitable for older children, and inflation more effectual in babies. In some cases the sudden giving way of the obstacle to pressure is so obvious that there can be no doubt of the complete reduction ; and if the small intestine was previously percussed out, the dulness, showing the presence of water, demonstrates that the ileo-cæcal valve was again patent. The time as to when to operate depended greatly on the tightness of the constriction. As regards tuberculosis, here it was rare. The tubercular knees and glands so common at home were most uncommon, and yet the incidence of phthisis was relatively equal. As regarded Dr. Halford's question about what one would call "phimosis," there was one case in which he would operate, *i.e.*, that in which on removing the napkin the infant's penis was seen in a state of erection.

Victoria.

The usual monthly meeting was held on August 16th ; the President (Dr. H. W. Bryant) in the chair.

Correspondence was read from Hon. J. E. Mackey.

The **Secretary** read from Hansard the part of Mr. Mackey's speech in moving the second reading of the Secret Commissions Prohibition Bill referred to. It was as follows :—"For instance, take a case mentioned in England of a practice said to prevail here also. It is stated in England that many medical men who give prescriptions have an arrangement with certain chemists that they will recommend their clients to purchase their medicines from these chemists, and Lord Russell assured the House the chemists pay from 25 to 50 per cent. commission on all purchases to the medical man." The letter was received.

At the request of the Hon. the Chief Secretary the proposed Dentists Amending Bill was considered. It had already been considered by the Council, who submitted various suggestions to the Branch. Clause 4 provided that the legally qualified medical practitioners on the board shall be elected by the registered dentists." The Council recommended "that they be elected by the registered medical practitioners." This recommendation was endorsed on the motion of Drs. Vance and Weigall. Clauses 15 and 16 dealt with the registration and adoption of title of dentist. The old bill provided that every legally qualified medical practitioner could practice dentistry and call himself a dentist on registering as such. The Amending Bill proposed to restrict the registration and practice to qualified dentists. Dr. W. L. Mullen, one of the medical members of the Dental Board, described the constitution of the board and the conditions of registration in other countries, and urged that medical practitioners should not be entitled to practice dentistry. Several members, however, pointed out that the interests of the present practitioners must be conserved, especially those in country districts. Dr. Cuscaden moved that a new clause be suggested as follows :—"Any legally qualified medical practitioner registered at the commencement of this Act shall be entitled upon payment of a fee of two guineas to register as a dentist under this Act, but no such registration shall be effected unless the application shall be made within twelve months of the commencement of this Act. The board shall cause to be sent to all legally qualified medical practitioners a copy of this clause within two months of the commencement of this Act." This was seconded by Dr. Joske and carried. Clause 21 :—"Notwithstanding anything contained in this Act, a legally qualified medical practitioner may perform any dental operation in the ordinary course of his medical or surgical work, or where the services of a dentist are not reasonably available." Dr. Vance moved and Dr. Weigall seconded that the words "in the ordinary . . . . . available" be omitted. This was considered unnecessary by Drs. Mullen, Stewart, and Laurie. The motion was carried.

A letter was read from the Secretary of the Medical Defence Association of Victoria requesting the Branch to appoint delegates to confer with them and representatives of the other medical societies in order that a unanimous recommendation might be forwarded to the Chief Secretary. Dr. Vance moved and Dr. Cuscaden seconded that it be a suggestion to the Medical Defence Association to also invite the medical members of the Dental Board to attend the conference. Carried. The President and Secretary were deputed to represent the Branch.

Dr. W. R. Fox gave a demonstration of the use of the cystoscope. He gave a short resumé of the history of its development, and showed various types of the instrument. Its uses were illustrated on an artificial bladder, on the walls of which were depicted various morbid conditions as found in the bladder.

Ballarat.

The ordinary bi-monthly meeting was held at the Ballarat Hospital on July 28th, 1905. Present : Dr. T. A. Wilson (president), Drs. Bennett, Campbell, Champion, Gardiner, Langmore, Mitchell, Richards, Affleck Scott, Robt. Scott, Steell. Apologies: Drs. Jordan, Salmon, Sloss, Usher.

Minutes of last meeting were read and confirmed.

Correspondence from Dr. R. G. Naylor *re* his membership, also from secretaries of New South Wales and Victorian Branches. From general secretary, stating that Dr. Courtney must be re-elected a member after his return from his trip.

Accounts amounting to £34 10s 6d were passed.

Dr. G. F. Sleeman was elected a member of the Council in place of Dr. Nisbet, who had left for Townsville, Queensland.

Dr. G. Affleck Scott read a paper on "Diagnosis of Common Inflammations of the Eye."

In discussion, Dr. Wilson remarked that the paper was comprehensive and taxed the ordinary member's knowledge, but he thought much had been learned from the paper.

Dr. R. Scott thought it a mistake for the ordinary practitioner to undertake eye work generally; also that cleansing an infant's eyes at birth saved them from inflammatory trouble.

Dr. J. M. Gardiner read a paper on the "Notification of Tuberculosis in Miners."

Dr. Mitchell stated that he had attended deputation to Melbourne last year, and that there appeared to be some confusion in classification of pulmonary tuberculosis generally and miners' complaint; also thought that if sputum were submitted to examination tubercle bacilli would be found to be absent in many cases.

Dr. R. Scott thought all cases of miners' disease should be notified, apart from whatever form it might take. In this way data would be obtained for statistics.

Dr. Richards said that anthracosis in the old country was not attended by tuberculosis.

Drs. R. Scott and Mitchell moved—"That the Secretary of the Board of Public Health be informed that this Branch is of opinion that miners' disease and tuberculosis are distinctly separate diseases; that in certain cases tuberculosis supervenes on miners' disease, and it is considered advisable that cases of miners' disease should be notified as such, and bacteriological examinations made from time to time as the case progresses." Carried.

Meeting then terminated.

West Australia.

An ordinary meeting was held on July 19th.

Dr. Lescher showed the following cases:—(1) Hernia of the lung in a phthisical patient, without traumatism, in the first intercostal space; (2) fibroid structure of the stomach; (3) aortic regurgitation.

Dr. Law showed a case of compound fracture of the olecranon seven weeks previously which was wired, and snapped again by sudden movement. Good result shown by X-ray photo.

Dr. Horrocks showed: (1) Slide showing syncytial bodies, from secondary growth in the vagina, in a case of chorion epithelioma of the uterus, following hydatidiform mole; (2) uterine polypus removed, the main part of which extended from the vulva.

Dr. Newton showed a specimen of double tubal pregnancy, one of which was probably older than the other; (2) a portion of sternum removed for secondary carcinomatous growth. The breast had been removed three years previously.

It was decided that the representation of the Branch at the forthcoming Intercolonial Medical Congress be left in the hands of Drs. Astles and Horrocks; also that a deputation should wait on the Colonial Secretary *re* a permanent reserve for a sanatorium for consumptives.

REPORTS OF OTHER SOCIETIES.

The Royal Alexandra Hospital for Sick Children.

The 12th clinical afternoon was held at Valentine-lane, Sydney, on August 18th; Dr. Gill presided. Dr. Litchfield showed a girl, aged 10½, whose limbs were covered with purpuric spots and bruises; she was not otherwise ill. Dr. Lethbridge exhibited an in-patient, a boy aged 6 years, suffering from severe talipes equino-varus of congenital origin. He also showed a cretin, a girl aged 12½ years. This child had never had any treatment. She was 3 ft. 2 in. in height, she weighed 3 stones, and presented all the classical features of sporadic cretinism. Dr. Wade showed two children presenting defects of speech. The first was a girl aged 7 years, whose inability to talk was associated with a general mental deficiency. The other was a girl aged 6 years. In this case there was a defective development of the auditory word-centre without other mental impairment. The intellect was good and the child was not deaf. The comprehension of words was very limited; she could repeat a few words after her mother, but she did not seem to understand their meaning. Further, her memory for these words was very poor, as she never reproduced them of her own accord. When started off, however, she could count up to ten, showing that her memory for words was not altogether absent. It was thought by those present that considerable improvement would take place in the child's condition, but that she should have special training.

Melbourne Medical Association.

The members of the Melbourne Medical Association recently entertained the Chancellor of the University and the Dean of the Faculty of Medicine at supper at the Vienna Café. Dr. F. H. Cole (president) was in the chair.

A paper on "The Influence of Heredity" having been read by Dr. D. M. Morton (the retiring president), the Chairman proposed "The University." He congratulated all connected with the institution upon the fact that it had survived the troubles which at one time threatened to overwhelm it, and had entered upon an era of prosperity. Thanks were due to the people and the Government of Victoria, who had combined together to bring the University once more into a sound financial position. Whilst much good work had already been done by the institution, he would suggest that more research work, especially in connection with medical science, might be undertaken. He coupled with the toast the names of the Chancellor of the University and the Dean of the Faculty of Medicine.

Sir John Madden suitably replied.

Professor Allen said that the coming jubilee of the University would be celebrated in the most fitting way possible. This year the University had the largest school it had ever had, as there were 256 students going through it.

Dr. E. Jones proposed the "Learned Professions." Professor Harrison Moore, Professor Osborne, and Professor Skeats briefly responded.

At the annual meeting of the association, held earlier in the evening, office-bearers for the ensuing season were elected as follows:—President, Dr. F. H. Cole; vice-presidents, Dr. R. R. Stawell, Dr. S. H. Nattrass; hon. steward, Dr. Loughrey; hon. treasurer, Dr. S. S. Argyle; hon. secretary, Dr. H. D. Stephens; committee, Drs. A. V. M. Anderson, C. Bage, W. Craig, H. M. Hewlett, D. M. Morton, and W. A. Moss.

AUSTRALASIAN MEDICAL CONGRESS.

SEVENTH SESSION, ADELAIDE—

September 4th to 9th, 1905.

The first general business meeting of the seventh session of the Australasian Medical Congress was held in the Prince of Wales Theatre, Adelaide University, on Monday, September 4th. at 11.30 a.m.

The President, Professor E. C. Stirling, C.M.G., F.R.S., M.D. (Cantab.), F.R.C.S., occupied the chair, supported on his right by the Hon. G. H. Butler M.L.C., Hobart, Dr. John Thomson, M.B., Ch.B. (Edin.), Brisbane, and on the left by Dr. F. C. Batchelor (Dunedin), Dr. J. C. Verco (Adelaide), the Secretary (Dr. Poulton), and Treasurer (Dr. W. T. Hayward).

The President, on rising, desired to first of all thank the members very sincerely for the distinguished honour they had conferred upon him by electing him to the Presidential chair, and with the permission of the members would postpone his thanks until the evening, when he would make a more suitable acknowledgment.

The President declared the Congress duly constituted, and called upon the General Secretary (Dr. B. Poulton) to read the report of the Executive Committee.

REPORT OF EXECUTIVE COMMITTEE TO CONGRESS.

At the last meeting of the Intercolonial Medical Congress of Australasia, held in Hobart during February, 1902, under the Presidency of the Hon. G. H. Butler, M.L.C., it was decided—"That the name of Congress be altered from 'The Intercolonial Medical Congress of Australasia' to 'The Australasian Medical Congress,' and that the succeeding session be held in Adelaide in 1905."

On the motion of Professor Allen, M.D., Professor E. C. Stirling, C.M.G., F.R.S., M.D. (Cantab.), F.R.C.S., was unanimously elected President.

At a representative meeting of the South Australian Medical Profession held on May 29th, 1902, the following gentlemen were elected by ballot as the Executive Committee of the Australasian Medical Congress to be held in Adelaide in 1905:—Drs. W. T. Corbin, W. Anstey Giles, J. B. Gunson, J. A. G. Hamilton, R. H. Marten, M. J. Symons, C. E. Todd, J. C. Verco, and Professor Watson. Dr. W. T. Hayward was elected Honorary Treasurer and Dr. B. Poulton General Secretary.

The Executive Committee so elected added to their number Drs. T. Borthwick, R. Brummitt, Cavenagh-Mainwaring, W. L. Cleland, A. H. Gault, A. A. Hamilton, T. K. Hamilton, R. E. Harrold, Melville Jay, A. A. Lendon, A. M. Morgan, B. Smeaton, A. E. Wigg, W. B. Aitken, John Johnson, O. W. Smith, J. I. Sangster, H. A. Powell, C. H. Souter, M. P. O'Leary, T. James, E. L. Archer, R. W. Stewart, J. H. G. Drummond, J. H. Evans, R. St. Mark Dawes, E. W. Morris, W. A. Hone and F. Goldsmith, and constituted themselves the General Congress Committee.

This committee determined the division of Congress into seven sections, and appointed a secretary for each section. It also took preliminary steps for securing presidents and vice-presidents of sections and secretaries of Congress in the several States, and appointed Dr. J. B. Gunson associate secretary, and subsequently, in August, 1902, nominated a standing executive committee for the conduct of all ordinary business of Congress, consisting of the President, the Treasurer, the General Secretary, the Associate Secretary, Drs T. A. Borthwick, W. R. Cavenagh-Mainwaring, W. L. Cleland, T. W. Corbin, W. Anstey Giles, A. A. Hamilton, J. A. G. Hamilton, T. K. Hamilton, Melville Jay, A. A. Lendon, R. H. Marten, H. Swift, M. J. Symons, C. E. Todd, J. C. Verco and Professor Watson.

The Executive Committee has been cordially supported in its labours by many leaders of the profession in the various States, and has in accordance with precedent elected presidents and vice-presidents of sections from all the States except South Australia. Their Excellencies the Governor-General of Australasia, the late Governor-General, and the Governors of the several States of the Commonwealth and of New Zealand have, with the Lieutenant-Governor of South Australia, graciously consented to become patrons of the Congress, which will be inaugurated by his Excellency Sir George R. Le Hunte, Governor of South Australia.

The Government of this State has very generously consented to print the Transactions, and offers every facility to members for visiting Government institutions and establishments. Government has also, at the instance of the Executive Committee, secured the appointment by the other States of Government representatives in the persons of Dr. Ashburton Thompson (New South Wales), Dr. John Thomson (Queensland), Dr. T. H. Lovegrove (West Australia), Dr. Elkington (Tasmania), and Dr. Mason (New Zealand). Victoria did not appoint a representative.

Dr. James Jamieson has been specially appointed to attend as representing the Melbourne City Council, and Dr. W. G. Armstrong the City of Sydney.

Matters closely concerning military medicine and the health of railway and other officials were brought under the notice of the Hobart Congress; and facilities will be offered during the present sitting for special meetings of army medical officers and members of the profession connected with the railway departments.

The Committee have been most ably assisted by the advice and support of the State secretaries, who were chosen so long ago as December, 1902, and who since then have continually worked to promote the success of this meeting. They are as follow:—Drs. A. A. Palmer, G. A. Syme, Wilton W. Love, A. J. H. Saw, Gregory Sprott, and J. O. Closs.

The Editors of the *Australasian Medical Gazette* and the *Australian Medical Journal* have constantly aided Congress in communicating with the profession.

The Committee wish gratefully to acknowledge the concessions given to members by the various State Governments with reference to special railway fares, and by the South Australian Railway Department in allowing them to travel in this State at single fares for double journeys. They desire also to record their appreciation of the generous allowances made by the shipping companies; and, especially, their sense of indebtedness to the Council of the University of Adelaide for the use of the greater part of these buildings, and the cordial sympathy extended by them to the work of Congress.

(Sgd.) E. C. Stirling, President.
B. Poulton, Secretary.

September 4th, 1905.

The General Secretary moved the adoption of the report, which was seconded by Dr. J. C. Verco, and carried.

The Treasurer (Dr. W. T. Hayward, M.R.C.S.) then read the balance-sheet, duly audited, as follows:—

THE INTERCOLONIAL MEDICAL CONGRESS—HOBART SESSION, FEBRUARY, 1902,

CR. IN ACCOUNT WITH THE HONORARY TREASURER. DR.

	£	s.	d.
By Subscriptions, 318 Members at £1 1s	333	18	0
„ Remittance from Treasurer of Brisbane Congress	109	19	4
„ Proceeds Sale of Typewriter, Brisbane	2	14	0
„ Exhibitors	17	5	0
„ Savings Bank Interest	5	8	8
	£469	5	0

	£	s.	d.	£	s	d.
To Expenses Local Branches—						
New South Wales ..	8	7	1			
Victoria	7	8	6			
South Australia ..	3	7	0			
New Zealand	2	9	0			
Queensland	2	1	0			
				23	12	7
„ Expenses Hobart				306	16	0
„ Remittance to Treasurer of Adelaide Congress				100	0	0
„ Balance in hand				38	16	5
				£469	5	0

Audited and found correct.
March 10th, 1905.

J. E. WOLFHAGEN,
Hon. Treasurer.

The TREASURER, in moving the adoption of the balance-sheet, desired to congratulate the Hobart Congress on the great success that had attended their efforts, and members would note that they had not only sent the amount of money received from Brisbane, but had exceeded that amount by about £30.

Dr. J. L. BEESTON seconded the adoption of the balance-sheet, which was carried.

Before passing on to the next business, the PRESIDENT made reference to the regret experienced by members of the Congress at the absence of Dr. Odillo Maher, of Sydney, who had unfortunately been prevented from attending, as he hoped to, by a domestic affliction, and one and all regretted his absence from the meetings. Another matter he wished to make known to the Congress was the receipt of the following telegram from the late Mayor of Hobart, reading: "Mayor of Hobart congratulates President, and wishes Medical Congress now assembled successful deliberations." (Applause.) Those who were at the Hobart Conference will remember how greatly indebted members were to the Mayor for the interest he took in the proceedings of the Congress, and for the kindness and hospitality which he and those connected with him extended to the visiting members. (Applause.)

The PRESIDENT called for any notices of motion.

The TREASURER (Dr. W. T. Hayward) thought it desirable that sections passing resolutions should take the responsibility of them, and resolutions so passed would stand a very much better chance of being carried out if left in the hands of the secretaries of the sections, rather than being sent on to the Executive Committee at the next Congress, which will probably not be appointed for some two or three years afterwards. He was amused, on looking through the report of the Congress recently, to find that he had been appointed a member of a committee to consider certain subjects, and that was the first notification he received of his appointment. He admitted there were certain resolutions requiring all the weight of Congress at their back, and these should be adopted by the Congress as a whole, but a great many of the more technical matters (particularly in the Eye and Public Health Sections) could be better dealt with by sections themselves. He therefore moved—"That all resolutions adopted by the sections shall be reported to the Congress, but that discussion shall take place only on such as have been specially recommended by the sections for adoption by the Congress."

This motion was seconded by Dr. GREGORY SPROTT.

Dr. GILES asked if the Treasurer was in order in having his motion put, without notice of motion having been given.

The PRESIDENT stated Dr. Giles was quite right in his contention that notice of motion should be given first, but as it was in his (the Chairman's) power to admit the motion, he would do so, and the motion was now open for discussion.

Dr. KENT-HUGHES suggested referring the matter to the Executive rather than the Section Committee.

The PRESIDENT said he thought Dr. Hayward's motion meant that some resolutions should be adopted only by the sections and that others were sufficiently important to be adopted by a Congressional resolution.

The PRESIDENT declared the meeting adjourned until Saturday, 9th instant, at 10 a.m.

The Congress was opened by his Excellency the Governor (Sir George Le Hunte) in the Elder Hall on Monday, September 4th, at 8.30 p.m., in the presence of a large and distinguished gathering. There were on the platform, in addition to the Executive Committee of the Congress: His Excellency the Governor, the Chief Justice (Sir Samuel Way, Chancellor of the University), the Premier (Hon. T. Price), Sir Lancelot Stirling (President of the Legislative Council), Sir Jenkin Coles (Speaker of the House of Assembly), Mr. Theodore Bruce (Mayor of Adelaide), Dr. Barlow (Vice-Chancellor of the University), and the Hon. R. Butler (leader of the Opposition).

The PRESIDENT (Dr. E. C. Stirling): In the name and on behalf of the Australasian Medical Congress I will ask the Governor to declare open this its seventh session. (Applause.)

HIS EXCELLENCY THE GOVERNOR (Sir George Le Hunte, K.C.M.G.): Mr. President, your Honor, the Premier, your Worship, Ladies and Gentlemen,—Before I formally declare the session open, I wish on behalf of his Majesty the King and the State of South Australia to extend to all those visitors who have come to the Congress a most hearty welcome. About six years ago I had the honour of being present at your Congress in Brisbane when Lord Lamington was

Governor of Queensland, and he began his opening address of welcome to you by apologising for the weather. I am very sorry that I have almost to follow in his Lordship's footsteps; but that is a matter beyond our control—even beyond the control of that most excellent Executive Committee who have so thoroughly well worked out every detail of the Congress for you. I do not think any city in the Southern Hemisphere could at any rate surpass this; but with such a garb as it wears now—at any rate if the warmth is not on the surface it is in our hearts towards you—we welcome you here. It is a very pleasing moment for South Australia that after 18 years the cycle of time should have brought round this Congress to where it first took its birth; and I am sure that those who took part, and were instrumental in giving it its first start, must feel extremely gratified at the result of their wishes and their foresight. I now have the honour to formally declare this seventh Congress of the Australasian Medical Congress duly opened. (Applause.)

THE HONORABLE THE PREMIER (Hon. T. Price) said: It affords me great pleasure to-night to welcome the Congress to South Australia. It falls to my lot because at the present time I happen to be Premier. I may say that the people of South Australia welcome you here because we believe that you are engaged in a work that is to the advancement of humanity generally, and that it is not a class movement—it is a movement on behalf of mankind generally—and we are all indebted to you for the amount of work you put into it and for the sacrifices that you make. I only hope that the Congress will make some new discoveries in their deliberations of Congress, and that you will not only be able to cure disease but to make people pay you afterwards. (Applause.)

THE RIGHT WORSHIPFUL THE MAYOR (Alderman Theo. Bruce): In the position that I hold to-day it affords me great pleasure to welcome you to South Australia, and particularly to the city of Adelaide. We look upon it as being one of the most healthy towns in the whole of the Australian colonies, and that is to be attributed, I believe, to a great extent to the number of very able medical men that we have in our midst. (Applause.) The doctors in South Australia are, I believe, such a very excellent lot and so worthy of imitation that I have not the slightest doubt those gentlemen who have arrived here from the other States will carry away with them a great deal of information that they otherwise would not be able to obtain. (Applause.) I am extremely glad to know that the first Medical Congress was held in the city of Adelaide, and that it was presided over at that time by Dr. J. C. Verco, who I am pleased to see on the platform to-night—(applause),—and as the immortal bard said, "he is one of the men that time cannot wither or custom stale in his infinite variety." I hope and trust you will have a good time here and that your deliberations may be, as I said before, productive of great good to the honourable and learned profession of which you are all such distinguished ornaments.

The PRESIDENT (Professor E. C. Stirling, C.M.G., M.D., F.R.S.) then read his inaugural address. (See page 417.)

Dr. JOHN THOMSON (Brisbane), in moving a vote of thanks to the President for his address, said:—The task imposed upon me can be best discharged by brevity. We came here to-night to listen to the inaugural address of our distinguished President. We came expecting an intellectual treat, and I can assure you for my own part, and I know I am speaking for all present, that our expectations have been realised. (Applause.) In his speech he has put before us many dishes—dishes of the highest quality—to provide food for our mental digestion. The address has been worthy of the man—the man that we have unanimously elected to preside over us. The address was worthy of that profession to which it was delivered. It was equally worthy of those men in this fair city of yours whose names have already been mentioned, and Dr. Poulton, who in the year 1887, to commemorate the Jubilee of her late Most Gracious Majesty Queen Victoria, inaugurated these Congresses. They went through all the colonies—Melbourne, Sydney, Dunedin, Brisbane, and Hobart—and it was, I think, in Brisbane that the representative of his Majesty the King here was first introduced to the mysteries of a Medical Congress.

His EXCELLENCY, before putting the motion, said:—As Dr. Thomson has stated, it hardly needs any further words from me to ask you to show your unanimous vote of thanks to our distinguished President. In the name of you all—and not only of those who are present, but of those who will have the privilege and pleasure of reading the address elsewhere—I think I may in your name present a most unanimous and most hearty vote of thanks.

The vote of thanks was carried, the President bowing his acknowledgment.

The Hon. G. H. BUTLER (Hobart) said:—It is my pleasing duty to propose a vote of thanks to his Excellency for his presence here, thereby showing his keen interest in our deliberations and discussions. The fact that one occupying his high position shows such interest in the work of this Congress must be an incentive to all of us to continue to extend our deliberations so that those who, unfortunately, may hereafter come under the care of any of us may benefit by what we learn from one another. I will also thank his Excellency on behalf of the visitors for the welcome he has given us to Adelaide.

THE FINAL GENERAL MEETING OF CONGRESS was held in the Prince of Wales Theatre on Saturday, Sept. 9, the President (Professor E. C. Stirling) presiding, supported on his right by the Hon. G. H. Butler and Dr. John Thomson, and on his left by Dr. Batchelor, Dr. Verco, the Secretary (Dr. Poulton), Associate Secretary (Dr. Gunson).

Before starting the business of the Congress the President informed members that a communication had been received from the Secretary of the Anglican Synod expressing good wishes towards the members and conveying the following resolution passed at their annual meeting:—

"This Synod recognising the dignity and greatness of the medical profession, its unique opportunities, its numerous responsibilities, together with its countless deeds of kindness to the sick and needy, tenders its respectful and hearty greeting to the Australasian Medical Congress assembled for the second time in the city of Adelaide. The Synod trust that by the blessing of God the deliberations of the Congress will minister to the progress and advancement of science and consequent amelioration of some of the world's distress. It also hopes that the visit to Adelaide of members of the Congress from other States will be one of pleasure as well as profit to themselves."

The following resolutions from various sections were then dealt with:—

FROM THE SECTION OF MEDICINE.

Dr. A. JARVIE HOOD moved, Dr. MURRAY seconded—"That this section is of opinion, judging from the complex and sometimes dangerous symptoms produced by X-rays, radium, and Finsen light, that the use of these agents should be in the hands only of members of the medical profession. That this resolution should be forwarded to the general meeting of Congress for its consideration."

Dr. **Love** thought it desirable that the words, "or under their direct supervision" should be inserted after "profession." This the mover and seconder agreed to, and the resolution was passed as read with the addition of the words as suggested by Dr. Love.

FROM THE SECTION OF PUBLIC HEALTH.

Dr. W. G. **Armstrong** moved, Dr. **Worrall** seconded, and it was carried unanimously, that the undermentioned resolutions be adopted by Congress:—

1. That in view of the profound influence of school life and school training upon the physical future of the race, the hygienic construction and management of schools, the training of teachers in school hygiene, and the systematic practical instruction of school children in elementary personal domestic and civic hygiene are subjects which demand the earnest attention of the Governments of the various States of the Commonwealth.

2. That for each State Education Department there should be available a whole time medical officer possessing special knowledge of applied hygiene in relation to schools, to whom should be referred all questions relating to the hygienic construction and management of State schools, to the protection of teachers and pupils from preventable disease, and to the methods and scope of hygienic instruction and training.

3. That applied school hygiene should form a compulsory subject in the training of State teachers, and that a system of medical inspection of schools should be introduced at an early date, particularly in the larger centres of population.

4. That the compulsory notification of phthisis is advisable in the interests of public health.

5. That in view of the large number of deaths from phthisis in Australasia, this Congress urges upon the Governments of the various States the necessity of establishing and maintaining sanatoria for the treatment of cases among the poor.

6. That it is necessary to provide a fund for assisting families among the poorer classes where the breadwinner is suffering from phthisis and has entered a sanatorium for treatment, and this Congress urges upon the Governments of the various States the necessity of taking steps for providing such a fund.

7. This Congress protests against any action which has the effect of interfering with a bi-daily delivery of milk in Australian cities, and considers any such action as seriously prejudicial to the public health.

8. That it be a recommendation to the next Congress that special consideration be given to the attaining of uniformity in the compilation of vital statistics in the Australian capitals.

Dr. **Rennie** proposed, and Dr. **Marten** seconded that the following resolutions from the

SECTION OF STATE MEDICINE AND MEDICAL ETHICS

be adopted by Congress:—

"That a committee be appointed, consisting of representatives from each State, with power to add to their number, to consider the best means to be adopted to amalgamate the various medical organisations throughout Australasia and New Zealand, two representatives to be elected by the local branches of the British Medical Association in each State, by the Victorian Medical Society, and in Tasmania by the Medical Section of the Royal Society, and by each Medical Defence Association in Australasia."

"That the Secretary of the Section of State Medicine and Medical Ethics should communicate the above resolution to the various bodies with a request to send him their nominations. This committee to report to next session of Congress."

Dr. **Springthorpe** moved, and Dr. **Howard** seconded:—

1. "That in the opinion of this Congress the future provision for the care and treatment of the insane in Australasia should be based upon a recognition of the threefold requirements of (*a*) up-to-date mental hospitals, (*b*) farm and industrial colonies, and (*c*) benevolent asylums."

2. "That in the opinion of this Congress there is imperative need for the establishment in different States of epileptic colonies, in which epileptic children should receive education, epileptic adults being suitably employed, and epileptics generally find a home as well as the most successful treatment."

Carried.

A further resolution in connection with the above, moved by Dr. **Springthorpe**, and seconded by Dr. **Howard**—"That the General Secretary take the necessary steps to forward this resolution to the proper authorities," was carried.

It was moved by Dr. **Rennie**, seconded by Dr. **Springthorpe**, and carried—"That it is unethical for medical practitioners to grant interviews to representatives of the lay press on medical matters, in connection with which their names are allowed to appear. That a copy of this resolution be forwarded to the lay press."

From the meeting of Military Medical Officers a resolution was sent forward reading—"That in the opinion of this meeting it is desirable to hold a Naval and Military Section at future Australasian Medical Congresses."

Surgeon-General **Williams** moved that the above resolution be forwarded to the next session of Congress, which was seconded by Dr. **Giblin**, and carried.

In connection with the Eye Section, Dr. **Kent-Hughes** moved that a resolution be passed calling the attention of the authorities to the frequency of lead blindness in young children, from two to eight years of age, in Queensland, which was seconded by Dr. **Gibson** and carried.

Dr. **Gibson** moved, Dr. **Kent-Hughes** seconded, that the above recommendation should appear in the report of the Eye Section transactions.

Dr. **Hayward** moved a resolution, which Dr. **Astles** seconded, and it was unanimously carried, that a recommendation be sent to the Executive Committee of the next Congress to draw up standing orders for the conduct of debates and other business.

Dr. **Jamieson** stated that he had been asked to take charge of the resolution in regard to the time and place of meeting of the next Congress, and he therefore proposed that the next meeting of the Congress be held at Melbourne, it to be provisionally understood to be in the year 1908. The exact date, however, to be left with the local authorities. They had much pleasure in formally inviting the Congress to Melbourne, and they trusted to make the meeting pleasant and successful. They had almost a painful sense of the profuse hospitality that had been accorded to them, but still, when they came to Melbourne they would do all in their power to make the visit enjoyable.

Dr. **Syme**, in seconding the resolution, felt that after the overwhelming kindness that had been shown to members of the Congress in Adelaide, it would be a somewhat difficult matter to entertain them in Melbourne.

The resolution was put, and the President formally announced that it had been decided to hold next Congress meeting in Melbourne in 1908.

Dr. Rennie proposed that Professor Allen (Professor of Pathology of the Melbourne University) should be the next President of the Congress.

Dr. Gibson seconded. Carried. (Applause.)

The Hon. G. H. Butler said that it afforded him much pleasure to move a vote of thanks to his Excellency the Governor for his kindness and the great interest he had taken in the proceedings, and for the regal hospitality extended to them whilst in Adelaide. Carried unanimously.

Dr. W. Love moved a vote of thanks to Sir Samuel Way, Lieut.-Governor of the State, in the first place for his patronage, secondly for his liberal spirit and sympathy with the objects of the Congress, and lastly, for his generous hospitality.

Dr. Verco proposed a vote of thanks to the Government of the State, and to the Hon. the Premier for the facilities afforded to visit State institutions, and also for concessions in regard to railway fares, and to the Deputy Postmaster-General for the conveniences granted in regard to post and telegraph business.

Dr. Astles proposed a vote of thanks to the Chancellor, Council and staff of the University for their courtesy and assistance.

Dr. C. Ross moved that a hearty vote of thanks be accorded to the Right Worshipful the Mayor for the interest he had taken in their doings.

Dr. A. J. Wood moved a vote of thanks to the Synod of the Church of England for their very friendly message, also to the Chapter of the Cathedral, the choirmaster and organist for their splendid service held on Sunday, also that special mention should be made of Canon Hopcraft.

On the motion of Dr. John Thomson a vote of thanks was also extended to the Government officials and ladies and gentlemen, too numerous to mention, who had done all they could to make their visit enjoyable. He also added the names of Mr. Roberts, chief mechanical engineer, Mr. Bayer, hydraulic engineer, and Mr. Owen Smythe, superintendent of public buildings.

Dr. Hood moved a vote of thanks to the press for their reports of the various meetings.

Dr. Batchelor said a very important matter left in his hands, that of proposing a vote of thanks to their worthy President, was one he felt sure no one could do justice to. It would be presumptous for him to thank him, and as long as they had leaders of the profession of the standard of Dr. Stirling they could hopefully look forward to the status of the medical profession in the States.

The President (who, on rising to reply, was greeted with cheers) said he would be more than human if he he did not greatly appreciate the compliment that had been paid him. A large measure of the success that had attended their efforts was due to the able assistance he had received from Drs. Hayward, Poulton and Gunson—(cheers)—and he recognised the amount of appreciation due to them. He was pleased to find the visitors had come over ready to be easily pleased, to make the best of whatever virtues they might find, and to turn a blind eye to the many failings they must have discovered.

Messrs. Parke, Davis & Co. direct attention to their advertisement on page 12.—[Advt.]

Proceedings of Sections.

Tuesday, September 5.—Dr. Colquhoun, of Dunedin (president of the section of Medicine), delivered his address in the Prince of Wales Theatre, entitled "Standard of Ethics and Work in Medicine." There were about 150 members present. Subsequently Dr. Colquhoun presided over the meeting of the section of Medicine, when Dr. Rennie, of Sydney, read a paper on "Diet in Relation to Kidney Diseases." This was discussed by Dr. J. C. Verco and Dr. J. Jamieson (Melbourne), and the discussion was adjourned.

A meeting was held in the morning and afternoon sessions in the section of Surgery, under the presidency of Dr. F. D. Bird, of Melbourne; papers on "Appendicitis" being read in the morning by Dr. Robert Scott, of Ballarat, and in the afternoon by Dr. Steer Bowker, of Sydney. These papers were discussed by Dr Long, of Bendigo, and Drs. O'Hara and G. A. Syme, of Melbourne.

There was a very large attendance at the meeting of the section of Gynæcology and Obstetrics, when Dr. W. S. Byrne, of Brisbane, gave his presidential address. Drs. Rothwell-Adams, Worrall and Foreman read papers on "Pelvic Suppuration" and "The Evolution of Abdominal Operation and Incision" respectively. These papers were discussed by Drs. Batchelor and Foreman, J. A. G. Hamilton, Byrne, and Cuscaden. Dr. Worrall spoke in reply.

At a meeting of the Eye, Ear and Throat section, Dr. A. J. Brady, of Sydney, presided; and the address by Dr. W. Odillo Maher (the president of the Eye division) was read by the secretary (Dr. M. J. Symon).

Professor D. A. Welsh (Sydney) opened the proceedings of the section of Pathology, Anatomy, Physiology, etc., with an address entitled "Recent Observations on Cancer and Tumour Growth." (See page 432.)

The presidential address in the section of Public Health, on "Some Lessons from the Statistics of Infantile Mortality in Sydney," was delivered by Dr. W. G. Armstrong, medical officer of health for the metropolitan district of Sydney.

Wednesday, September 6.—Dr. F. D. Bird, of Melbourne, delivered the presidential address to the section of Surgery on "Syphilis of the Abdomen." (See p. 446.) The Surgery section then discussed papers read the previous day by Dr. Robert Scott, of Ballarat, and Dr. Steer Bowker, of Sydney. The following took part in the discussion:—Drs. Maitland, Hinder, Hamilton, Russell, Beeston, Long, Bickle and Steer Bowker. Dr. Hinder, of Sydney, read a paper on "Urinary Surgery," and Dr. O'Hara, of Melbourne, one on "The Removal of the Prostate Gland."

In the section of Medicine, the paper given by Dr. Rennie, of Sydney, was further discussed by Dr. Abramowski. Dr. Rennie replied. Dr. Springthorpe read a paper on "The Use and Abuse of Mental Therapeutics," and Dr. Abramowski one on "The No-Food Treatment of Typhoid Fever." These were discussed by Drs. Rennie, Verco, Jamieson, Springthorpe, Jarvie Hood, and the president (Dr. Colquhoun). Dr. Rennie, of Sydney, gave a paper on "Epilepsy: Is it Curable?" and Dr. Jamieson one on "Notes of a Case Illustrating the Symptoms of Tumour of the Occipital Lobes of the Brain." Discussion on these two papers was adjourned till Thursday morning.

In the section of Gynæcology and Obstetrics (Dr. Byrne, president), Dr. Batchelor, of Dunedin, read a paper on "The Toxæmia of Pregnancy."

In the Eye division of the Eye, Ear and Throat section (Dr. A. J. Brady presiding) the following papers were read:—"Plumbic Neuritis," by Dr. Lockhart Gibson (Brisbane); "Melanotic Sarcoma of the Conjunctiva," by Dr. Antill Pockley (of Sydney), "Keratitis During and After Dengue" and "Pseudo-Myopia and its Treatment," by Dr. Lockhart Gibson; "A Case of Myasthenia Gravis in Special Relation to Eye and Throat Conditions," by Dr. G. H. Hogg (Tasmania); "Refraction in Aphasia," by Dr. R. H. Jones; "Cataract from the Patient's Point of View," Dr. Andrew Orr; "Cases Illustrating the Influence of Increased Intracranial Pressure as a Cause of Optic Neuritis," and "Exophthalmos in Relation to Disease in the Adjacent Bony Cavities," Dr. Wallace Mackenzie; "The Suturing of Gaping Wounds on the Sclerotic and of those made by the Surgeon in Cataract Operations," by Dr. J. P. Ryan; "The Treatment of Trachoma with Cuprol," "One or Two Cases of Extraction of Foreign Bodies by Magnet," and "The difficulties of arriving at a decision as to when an Injured Eye must be Excised," by Dr. G. M. Scott. At this meeting it was decided to ask Congress to pass a resolution calling the attention of the authorities to the frequency of lead blindness in young children from two to eight years of age in Queensland.

Professor Welsh presided over the meeting of the section of Pathology, Anatomy, Physiology, when Dr. Angas Johnson (Adelaide) read his paper on "Some Human Parasites," which he illustrated with various exhibits.

In the section of Public Health, Dr. J. S. Elkington read his paper on "School Hygiene." Amongst those present at this section were Mr. C. E. Owen Smyth (Superintendent of Public Buildings), Mr. F. Chapple (Headmaster Prince Alfred College), Inspector Stanton (Chairman of the Board of Inspectors), and Inspector Witham. The above-mentioned took part in a short discussion on the paper, and some resolutions were carried, to be reported to the full Congress.

In the section of State Medicine and Medical Ethics, Dr. Syme delivered his presidential address, but as several of the other sections were sitting at the same time there was not a very large attendance.

THURSDAY, SEPTEMBER 7TH.—In the section of Medicine the adjourned discussion on Dr. Rennie's and Dr. Jamieson's papers was concluded. The following papers were also read:—"Pulmonary Tuberculosis," Dr. McIntyre Sinclair; "Sanatorium Treatment of Phthisis," Dr. Stoney; "The Results of Sanatorium Treatment of Pulmonary Tuberculosis," Dr. W. Camac Wilkinson; "Sanatorium Treatment of Phthisis," Dr. Gault; "The External Application of Guaiacol," Dr. T. C. Moore; "The Nasal Treatment of Asthma," Dr. Robertson.

In the section of Surgery, Dr. H. L. Maitland's paper on "Enlarged Prostate" was discussed by Drs. Hinder, Chisholm, Steer-Bowker, Craig, and the President (Mr. F. D. Bird). Dr. Maitland spoke in reply. A paper was also read on "Radical Cure of Hernia," and discussed by Drs. Bickle, Hinder, Maitland, Chisholm, Steer-Bowker, and the President (Mr. F. Bird).

Dr. Batchelor's paper on the "Toxæmia of Pregnancy," delivered to the section of Gynæcology and Obstetrics, was discussed by Drs. Foreman, Adam, Worrall, Cuscaden, Wilson and Byrne. Dr. Batchelor replied. A paper was also given, "The Evolution of the Abdominal Operation and Incision," by Dr. J. Foreman (Sydney), followed by a discussion on same by Drs. Batchelor, Rothwell-Adam, Worrall, Byrne, Love, Voss, Jay; and Dr. Foreman spoke in reply.

The following papers were read to those interested in the section of Public Health:—"Typhoid Fever in New South Wales, 1898-1904," by Dr. R. J. Millard, of Sydney; "Notification of Phthisis," by Dr. T. Borthwick, of Adelaide; "Sewage Treatment—a Review," by Dr. E. S. Stokes (Sydney); "Summer Diarrhœa in Infants from a Public Health Point of View," by Dr. W. H. Litchfield (Sydney).

In the section of State Medicine and Medical Ethics, Dr. Rennie, of Sydney, gave his paper on "The Rôle of Provident Medical Associations." A paper on "Hospital Abuse," by Dr. Bryant (Melbourne), and one on "Paying Patients in Public Hospitals," by Dr. Moore (Melbourne), were read by the Secretary, and discussed by Drs. Howard, Rennie, Butler, Hayward, Gregory Sprott, Morris, and the President (Mr. Syme).

At this sectional meeting the following resolutions were agreed to:—1. On the motion of Dr. Rennie (Sydney), seconded by Dr. Beeston (Newcastle)—"That a committee be appointed, consisting of representatives from each State, with power to add to their number, to consider the best means to be adopted to amalgamate the various medical organisations throughout Australasia and New Zealand, two representatives to be elected by the local branches of the British Medical Association in each State, by the Victorian Medical Society, and in Tasmania by the medical section of the Royal Society, and by each medical defence association in Australasia. That the Secretary of the section of State Medicine and Medical Ethics should communicate the above resolution to the various bodies, with a request to send him the names of their representatives. That the committee bring up a report to the next Congress." 2. On the motion of Mr. Syme (Melbourne), seconded by Dr. Gregory Sprott (Hobart)—"That it is unethical that autobiographical or biographical notices of medical practitioners should be published in the lay press during their lifetime."

FRIDAY, SEPTEMBER 8TH.—To those interested in the section of Medicine, clinical exhibits were shown at nine o'clock. At 10 a.m. Dr. Herman Lawrence, of Melbourne, gave a paper on "Radium," exhibiting photographs showing how the rays from the radium go through a wall, producing a radiograph of objects in another room. He showed a radiograph which was taken through six inches of paper and six layers of lead foil. The following papers were also read:—"Present Position of the Röntgen Rays in Medicine and Surgery," Dr. L. H. Harris; "The Chemical Effects of the X-rays," Dr. Fred. Clendinnen; "Transposition of the Organs, verified by Post-Mortem Examination," Dr. Jarvie Hood; "Is there such a Disease as Croup?" Dr. H. Astles; "Leukæmia and Allied Conditions in Children," Dr. I. M. Gill; "Anæmias of Children," Dr. Baxter Tyrie; "Andhylostomiasis," Dr. Macdonald; "Two Cases of Blood Poisoning," Dr. I. M. Gill; "The Medical Treatment of Appendicitis," Dr. Benham; "Fatal Case of Acute Pancreatitis," Dr. Benham.

The above papers excited considerable discussion, in which the following took part:—Drs. Springthorpe, Wilton-Love, Voss, Hood, Reissmann, Benham, and the President.

In the section of Surgery the following papers were read:—"Brophy's Method of Treating Cleft Palate," Dr. Morton; "Remarks on Talipes," Dr. Kent-Hughes; "Magnesium Darts in the Treatment of Vascular Tumours," Dr. McCallum; "Transplantation of Ureters into Rectum," Dr. Newland. Pathological exhibits were shown by Drs. Lendon and Newland.

In the section of Gynæcology and Obstetrics, Dr. Cowen gave a paper on "Puerperal Sepsis"; Dr. Clendinnen one on "Thrombosis of Jagular Vein after Parturition"; Dr. Batchelor, "Chorion Epithelioma"; and Dr. J. A. G. Hamilton, "Acute Dilation of Stomach following Abdominal Operations."

In the section of Pathology, Anatomy, and Physiology, a paper on "An Unusual Form of Fibro-Cellular Tumour," by Dr. J. Thomson; paper and demonstration on "Some Human Parasites," Dr. Angas Johnston; "Notes on a New Human Parasite," Dr. MacCormick and Professor Welsh; "Notes on a Laval Tapeworm from the Human Subject," Dr. MacCormick and Dr. J. P. Hill; "Note on the Frequency of Streptothrix Infections in Man," Dr. MacCormick, Dr. Barling and Professor Welsh; "Sections of Inflamed Appendices in Various Stages," Dr. Wilton-Love.

To the section of Public Health Dr. Jamieson read a paper on "A Short Record of Twenty Years' Sanitary Progress in Melbourne"; Councillor J. R. Baker (Adelaide) one entitled "A Review of the Public Health Legislation of Australasia:" and Mr. T. G. Ellery (Town Clerk of Adelaide) "Sanitary Administration in Adelaide." A number of interesting exhibits lent by the Board of Health, New South Wales, were shown.

In the section of State Medicine and Medical Ethics the papers on "The Ethical Relations between Town and Country Practitioners," by Dr. Allwork, and "The Friendly Societies in Napier, N.Z.," by Dr. T. G. Moore, of Napier, were taken as read. It was resolved on the motion of Dr. Rennie, seconded by Dr. Springthorpe—"That it is unethical for medical practitioners to grant interviews to representatives of the lay press on medical matters in connection with which their names are allowed to appear. That a copy of this resolution be forwarded to the lay press."

In the Prince of Wales' Theatre, Surgeon-General Williams, C.B., Director-General, A.M.S., gave a paper on "The Organisation of Australian Medical Services, with Requisite Expansion in Time of War." Lieut. Colonel Eames moved—"That it is desirable to hold Naval and Military Sections at future Congresses," which was seconded by Major Beeston, and carried unanimously. Major Ramsay-Smith (S.A. State P. M.O.) made reference to the desirability of getting first-class reserves of officers. Lieutenant-Colonel Thomson (Queensland) gave a brief outline of the working of the Brisbane Ambulance Corps, who have about ten waggons. The stations are fitted with electric bells similar to the fire stations, and turn out in very quick time after receiving a call. Amongst those present at this section were Captain Rogers (Medical Officer Fourth Contingent), Captain Reade, Captain Wallach, Captain Shepherd, Captain Bennett, Lieutenants Bennett and Hornabrook.

The Ear and Throat Section.

THE first meeting of this section was held on Thursday morning, September 7th, at 10 a.m. The subject for the opening discussion was the indications for the radical mastoid operation, which was introduced by Dr. Webster, Dr. Lockhart Gibson, and Dr. Richard Arthur.

Dr. **Brady**, president of section, thanked the section for the honour which had been conferred upon him, and made some interesting remarks on the subject for discussion. He stated that he was somewhat in favour of conservative methods.

Dr. **Webster** (Melbourne) stated that the cases over which there was controversy were those in which there was a chronic discharge without other symptoms. If the discharge had lasted twelve months, and had been treated for two months without avail, he would advise operation. Before proceeding to the radical operation, he would remove the ossicles with the hope of a good result. As regards the operation, the speaker favoured Ballance's operation, especially emphasising the necessity for a large skin flap. He deprecated Heath's small flap. He preferred the chisel and mallet to the bone, and used either a stack protector or a small roll of gauze inserted below the bridge of bone. He had no experience of skin-grafting, and believed that if the whole of the diseased bone was removed there was little or no necessity for skin-grafting. The application of alcohol and nitrate of silver to any granulations was of value, the alcohol to be begun about the third or fourth day.

Dr. **Lockhart Gibson** (Brisbane) recommended dealing with the bone of naso-pharynx in cases of chronic discharge as a preliminary procedure. If the otorrhœa continued, even though there be no sign of necrosed bone, a radical operation should be performed. The speaker objected to the procedure of curetting, as he considered it was unsatisfactory as regards cure, and added a new element of danger. Intermittent otorrhœa if the hearing was fair did not call for operation. With a small perforation, and occasional acute attacks of pain, enlargement of the opening in the membrane, and the Wilde's incision was often sufficient. He had found that the grafts shed epithelium for months after their application. He considered it better to close the Eustachian tube, as there was the possibility of catarrh spreading up from the throat. He did not believe that skin-grafting interfered with the hearing. He preferred ether as an anæsthetic for the operation.

Dr. **Richard Arthur** (Sydney) also dealt at length with the indications for operation, and with some points in the technique of operation.

Dr. **Brady** said he had never had permanent paralysis of the facial nerve. He advocated Heath's flap in cases where there was no œdema.

Dr. **Kirkland** (Sydney) did not believe it possible to curette away all the mucous membrane, and in cases where the discharge persisted he was in the habit of applying caustics. The duration of epidermisation was from six weeks to three months. He thought the grafts should not close the Eustachian tube on account of the hearing. He found that the bridge of bone could best be removed by a special form of bone forceps. His few cases of facial paralysis only lasted for a few weeks.

Dr. **Macallum** (Geelong) had seen a large number of cases of brain abscess in Professor MacEwan's clinic. He stated that MacEwan believed that energetic syringing was often the cause of mastoid disease in cases of chronic otorrhœa, as infective material was carried back into the deeper cavities. MacEwan never had any trouble with the facial nerve. He deprecated the use of the chisel.

Dr. **Barrett** (Melbourne) thought the only risk of the operation was facial paralysis. He had had two cases due to curetting through the meatus. He was more and more inclined to perform the operation in cases of chronic discharge, especially it there was any obstruction to drainage. In all cases he exposed the lateral sinus, and in many cases the dura mater. He had never yet had a case in which there had not been some discharge after operation. He described a punch forceps for the easy and safe removal of the bony bridge. He gave details of two recent cases in his practice. One of them after a radical operation had severe symptoms a few days afterwards. A second operation showed a few drops of pus along the sinus. A second case had abundant granulations in ear, almost suggesting sarcoma. On operation, granulations were found all along the sinus.

Dr. **Kent-Hughes** (Melbourne) thought that the instruments used did not matter much, but the manner in which they were used. He was in favour of early operation and of energetic treatment of the throat and nose. He agreed with Dr. Gibson that there was danger in curetting the middle ear.

Dr. **Hogg** (Launceston) pleaded guilty to a case of permanent facial palsy in a case of tubercular disease of the middle ear which was filled with granulations. He thought that often there were many cases which, a few months after the radical operation, had a slight fœtid discharge. He condemned attic operations.

Dr. **Ewing** (Melbourne) thought that removal of nasal and pharyngeal factors often caused the cessation of a chronic otorrhœa. In cases where the disease did not seem widespread he believed in ossiculectomy. He had found that removal of the ossicles often cured the discharge. The more thoroughly every septic focus in the temporal bone was removed, the more satisfactory was the operation. He was not convinced of the wisdom of Heath's operation, and thought that many of his cases were done unnecessarily. In a radical operation it was necessary to have good assistance, as you were sinking a shaft in wet country. It was most important to keep the bottom of cavity dry and to have a good light. It was impossible to predict the result to the hearing of the operation.

Dr. **Fisher** (Adelaide) gave details of a case suffering from vertigo, with no signs of suppuration. There was, however, optic neuritis. The patient developed epileptic symptoms and died a few days afterwards. At the autopsy there was thrombosis of both lateral sinuses and granulations in the left ear. He believed it was expedient to always examine the lateral sinus. In a case with acute symptoms the pain and other symptoms subsided under treatment. A few days later there were rigors, which were explained by a pneumococcal infection.

Dr. **Barrett** stated that the incision along the brain line led to no disfigurement, and an enlarged meatal opening was not noticeable.

Dr. **Ryan** (Nhill) was surprised that Dr. Kirkland had operated on so many cases, as in Melbourne, at the Eye and Ear Hospital, he had only seen a few cases in a year.

Dr. **Brady** said he was pleased to hear that there had been so few unfortunate results as regards the facial nerve. He thought that on the average hearing was improved after the operation.

Dr. **Webster**, in reply, said that he had seen some cases in which there was persistent pain after the operation. He thus agreed with Dr. Ewing that if the operation was to be done there should be a free incision and a large cavity.

Dr. **Gibson** thought that in some cases Wilde's incision was a very valuable procedure and often obviated more serious interference. Hearing is often better about two months after operation. The objection to immediate grafting was the difficulty of suturing an aseptic cavity.

Dr. **Richard Arthur** also replied.

Friday, September 8.—A discussion on the diagnosis and treatment of suppuration of the accessory sinuses of the nose was opened by Drs. Kirkland and Hogg.

Dr. **Kirkland** (Sydney) discussed the various theories as to the ætiology of suppuration in the antrum. It had been proved there was no specific bacillus, but in all probability the pneumococcus and influenza bacillus were the commonest causes. The strumous diathesis favoured pan-suppuration, and these cases were difficult to cure. Acute cases got well in from one to three weeks. A chronic condition was generally due to some obstruction to drainage in acute cases. In very few cases of antrum disease were there polypi, unless the ethmoid was also affected. Some cases of antral suppuration, as pointed out by Dr. Brady, show no secretion anteriorily, but secretion could be seen trickling over the soft palate. Treatment at first should be limited to perforation of antrum through a tooth socket and irrigation. If this was not successful after a few weeks the radical operation should be performed. If a large amount of bone was removed from the canine fossa there was interference with the nerve supply of the teeth. Dr. Kirkland then described the various stages of the radical operation on the maxillary antrum, and showed a punch forceps he had devised for making the opening between the antrum and nose. Suppuration in the frontal sinus was very difficult to cure on account of its anatomical configuration. Some of the ethmoidal cells were also generally affected. If the infundibulum could be kept open and the ethmoidal cells removed, it was well not to do an external operation. If the case was very chronic, it pointed to polypoidal tissue in the sinus. He was in favour of a conservative attitude in most cases unless pain supervened. He thought that continued suppuration shortened life. Cases of extension to the meninges or brain were not common. There were many pathological sequelæ to frontal suppuration, especially chest complications due to infection from above. Conservative methods of treatment usually failed to produce a cure. The Ogsten Luc, Tilley, Greenwald, and Jansen methods of operation were described. Suppuration in ethmoidal cells produced polypi and sometimes a chronic laryngitis. He deprecated Lack's radical operation of curetting the ethmoidal cells as an undesirable one. He recommended trichloracetic acid in cases of ozena.

Dr. **Hogg** (Launceston) described the duration of the pathological conditions of the nose into those affecting the anterior and posterior cavities. He dealt with some universal cases of acute suppuration in the various cavities. Dr. **Hogg** then discussed in detail the various symptoms accompanying cases of chronic suppuration, and the sequelæ of a more or less serious nature which were sometimes met with. One important point in diagnosis was the recognition of the fact that often several sinuses were involved. The most careful examination was necessary to determine what cavities were affected. With regard to frontal sinus disease, the speaker emphasised the possibility of dangerous complications and deformity. He suggested the employment of skin-grafting in the treatment of frontal sinus suppuration. The difficulties of a cure in all cases of accessory sinus disease should be laid before the patients.

Dr. **Brady** believed that long continued irrigation of the antrum should not be carried out, but that the radical operation should be recommended if speedy cessation of the discharge did not come about. He had never seen the teeth die after removal of bone in the canine fossa. He disagreed with Dr. Kirkland in not advising an external operation in many cases of frontal sinus, and generally recommended patients to be operated on. He believed that in severe cases the proper procedure was to remove all the anterior wall of bone, and completely obliterate the sinus. He had one case in which a patient died after Lack's operation, but he thought, however, that it was indicated in some cases where the granulation tissue was very abundant.

Dr. **Barrett** (Melbourne) said that he regarded it as questionable if suppuration of the maxillary antrum was inimical to life itself, though ill health was produced. Mere washing out through the alveolus often led to a great improvement in health. A cure could not be perceived in any case of antrum suppuration. In doing the radical operation, he always made the opening into the nose as large as possible, and low down. He believed that if there was a purulent discharge from the frontal sinus it should be opened, and as radical an operation as possible performed.

Dr. **Kent-Hughes** (Melbourne) believed that irrigation seldom cured maxillary suppuration, and that the treatment of these cases by dentists should be deprecated.

Dr. **Ewing** (Melbourne) drew attention to the importance of recognising the development of the various affections of the accessory sinuses. Acute infectious conditions of the sinus should be very carefully treated to prevent a chronic condition. He advised a spray of adrenalin, posture to allow of drainage, and then a nasal douche. He thought that a conservative attitude towards operations on the frontal sinus was the wise one.

Dr. **Arthur** (Sydney) agreed with Dr. Barrett as to the unwillingness of patients to undergo the radical operation on the antrum, even though drainage through alveolus had not cured the discharge. He condemned Lambert Lack's operation on the ethmoidal cells, and advised prolonged treatment by the snare and Greenwald's forceps.

Dr. **Marks** (Sydney) disagreed with Drs. Barrett and Arthur as to the postponement of the radical operation on the antrum. He did not believe in Lambert Lack's operation on the ethmoidal cells.

Dr. **Kirkland**, in reply, suggested that there might be some connection between sinus suppuration and tuberculosis. He quoted Spicer, as believing that the higher opening in the antrum in the radical operation was the preferable one.

Dr. **Ewing** (Melbourne) read a paper on "Nasal and Naso-pharyngeal Factors in Chronic Catarrhal Disease of the Middle Ear." In many cases 60 or 70 per cent. of the hearing power was lost before the patient became aware of it. Only the supervention of tinnitus and other symptoms drew attention to the deafness. Nasal obstructions due to rise in venous pressure was often found only during sleep, and might be due to a lowered condition of health. The various theories as to the connection between the mucous membrane of the nose and the mucosa of the middle ear were discussed. In many cases the Eustachian tube alone was affected, and marked improvement resulted from catheterisation. He concluded that the failure of inflation of the middle ear to cause any improvement in hearing in certain cases of chronic middle ear catarrh, which, however, responded to the removal of the causes of Eustachian tube involvement, tended to favour the conception that an easy interchange between the middle ear and the naso-pharynx was necessary for the integrity of the ear.

Entertainments at the Congress.

Sunday, September 3rd.—A special service in connection with the Congress was held at St. Peter's Cathedral in the afternoon. There was a large congregation, among those present being the Governor and Lady Le Hunte, the Chief Justice and Lady Way, and the Mayor of Adelaide (Mr. Theodore Bruce), who wore his robes of office, and the city aldermen. The choir was largely augmented, and the organ was reinforced by an orchestra, under the conductorship of the Cathedral organist (Mr. J. M. Dunn). The precentor (Rev. Dr. Milne) read the prayers, and the Dean the lessons. Canon Hopcraft, who preached the sermon, took his text from Revelations xix, 6th verse: "The Lord God omnipotent reigneth." As a processional hymn, "O God, our help in ages past," was sung, and as a recessional, "Through the night of doubt and sorrow." A very effective rendering of the anthem "Lord, I have loved the habitation," was a special feature of the service.

Mrs. Lendon was "at home" to members and their wives after the service.

Monday, September 4th.—As his welcome to the members of the Congress, the Mayor tendered them an "at home" in the Town Hall on Monday afternoon, when Mr. and Mrs. Bruce received several hundreds of guests, composed of members of the profession, their wives and lady friends, and leading citizens of Adelaide. The hall was beautifully decorated, wattle blossom being very conspicuous. Mr., Mrs., and the Misses Bruce were stationed on a dais on the northern side of the main hall, the Mayor's secretary (Mr. Morrison) announcing the names of the guests. The arrival of the Vice-Regal party, consisting of his Excellency and Lady Le Hunte, the Hon. Victor Hood (private secretary), and Miss Sweete, was announced by the playing of the National Anthem on the organ, Councillor Baker and Alderman Johnson conducting the Vice-Regal guests to the dais. Cawthorne's orchestra played throughout the afternoon, and the city organist (Mr. Pybus) gave selections on the organ at intervals. Afternoon tea was served in the banqueting hall and refreshment-room, the tables being decorated with a wealth of blossom.

Tuesday, September 5th.—The visitors and their wives were entertained at a garden party at Government House in the afternoon, the gathering proving very enjoyable. His Excellency the Governor and Lady Le Hunte received their guests at the side lawn entrance, Staff-Captain O'Brien announcing each lady and gentleman. Afternoon tea was served in a large marquee erected in the grounds, and a band played appropriate airs throughout the afternoon. Mrs. Hamilton and Mrs. Swift were "at home" to members and their wives in the evening.

Wednesday, September 6th.—A large muster of the members of the Congress took place at the University on Wednesday afternoon, when at 2 o'clock the party left in four drags and 10 motor cars to visit the consumptive sanatoria at Belair. Kalyra was visited first, and afterwards the private sanatorium, Nunyara. Before returning to the city, visitors took afternoon tea at Dr T. K. Hamilton's residence. Very favourable comments were passed regarding the consumptive homes, which were considered to be admirably adapted for the work, being built on the best principles, and possessing attractive surroundings and outlook, which were bound to help a patient's recovery.

On the same afternoon a good number of the members of the Congress and their wives visited the Outer Harbour works and the quarantine station, at the invitation of Dr. and Mrs. E. W. Morris. A special train conveyed the guests to the Outer Harbour, arriving there just before 3 o'clock. As the guests left the train they were met by Dr. and Mrs. Morris. After having inspected the work in progress, the party embarked on the tug Leveret, where afternoon tea and other refreshments were served, a string band playing some selections. Arriving at the Torrens Island jetty, the head keeper of the quarantine station (Mr. Wache) welcomed the party, and showed them through the various cottages, recently renovated. The "Leveret" reached the port shortly after 5 p.m., the visitors disembarking at the ocean steamers' wharf, where a special train conveyed them back to the city after a very enjoyable outing.

At the Elder Hall in the evening a reception was held by the President (Professor E. C. Stirling), and was a brilliant success. The guests, numbering about 600, were received from 9 till 9.30 o'clock, the Government House party comprising his Excellency and Lady Le Hunte, Miss Sweete, and the Hon. Victor Nelson Hood. The Chief Justice and Lady Way were accompanied by Miss Blue and Mrs. Dunbar Hooper, of Melbourne. The Mayor of Adelaide and Mrs. Bruce were also present. The decorations, which were carried out by the Misses Stirling, consisted of crêpe paper poppies, the dancing space being bordered by rows of palms. Large shower bouquets were hung from each light, which was shaded by a large double poppy, the whole combined giving the hall an enchanting appearance. Corners of the hall were carpeted and furnished as drawing-rooms. Miss Chaplin's orchestra provided excellent music. Miss Martha Bruggemann sang "Mia Piccirella" (Gomez) and a bracketed number, "Afar in the Wood," and "Synnove's Song" (Kjerulf), and Miss Winifred Cowperthwaite contributed a violin solo, a polonaise by Wieniawski.

Thursday, September 7th.—About 60 members of the Congress and a number of ladies made an excursion to Islington by special train in the afternoon, and were interested in an inspection of the Government Railway Workshops. A few of the members (under the guidance of Mr. Bayer, hydraulic engineer) proceeded to the sewage farm, where they made an interested inspection of the farm. The visitors expressed their appreciation of the high state of efficiency which has been attained at the institution.

Mrs. Symon's "at home" to ladies, at Pennington Terrace, North Adelaide, was attended by a goodly number of lady visitors, and proved very enjoyable.

In the evening there was a dinner party at Government House to the officials of the Congress; and a ball at the North Adelaide Institute, arranged by Mrs. Charles Todd, was very well attended.

Golf.—Matches between visiting members of the Congress and local members were played on Thursday, September 7th, on the Glenelg links, by the kind permission of the Glenelg Golf Club, with the following result:—Mr. Gordon-Craig (Sydney) lost to Mr. J. R. Baker (Adelaide); Dr. Carvosso (Brisbane) lost to Dr. Swift (Adelaide); Dr. Barrett (Melbourne) beat Dr. Jay (Adelaide); Dr. Kirkland (Sydney) halved with Dr. H. Giles (Adelaide), and Dr. Gill (Sydney) lost to Dr. C. Mainwaring. The local members won by three matches to one. The course was in splendid order, the green being excellent.

Friday, September 8th.—At 9 a.m. many of the members attended the cremation of sheep at the crematorium, West Terrace. The experiment was conducted primarly at the request of Dr. Batchelor (N.Z.), who was commissioned to report to the Government of that colony on the subject.

About 40 of the members (in a drag and three motor cars) went to Glenelg on Friday afternoon, and under the guidance of Mr. Bayer, hydraulic engineer, made an inspection of the sewage system of septic tanks, with which they were greatly pleased. Afternoon tea was partaken of at the residence of Mrs. Richard Smith.

A garden party was given on the same afternoon by Mrs. Simpson Newland at Burnside.

A conversazione was given by the Chancellor of the University and Lady Way at the Elder Hall in the evening, the hall being very artistically decorated. The Governor and Lady Le Hunte were present, and there was also a large gathering of leading citizens. During the evening Dr. John Thomson lectured in the Prince of Wales' Theatre on "A Disease Garden." The lecturer, by means of interesting slides, illustrated the action of the bacteria. Mr. T. G. Ellery exhibited lantern slides of Adelaide and vicinity, giving a descriptive lecture thereon. A short programme of music was gone through, and a programme of 10 dances brought a very pleasant evening to a close.

At the Training College, Grote-street, on Friday evening, before a large audience of the members of the Adelaide Teachers' Association, Dr. Elkington, Chief Health Officer of Tasmania, delivered a lecture on "School Hygiene," which he illustrated with lantern slides. During the progress of the lecture he made various recommendations to those present.

In the Town Hall, on Friday evening, at the request of the Adelaide Board of Health, Dr. Armstrong, of Sydney, delivered a lecture, "Municipal Sanitation in Australia." There was a large attendance. The Mayor of Adelaide occupied the chair, and a number of the suburban mayors, aldermen, and councillors were present.

Saturday, September 9th.—A large number of the members, after the conclusion of the general business meeting, proceeded to Mr. Brookman's farm and the Happy Valley Waterworks, at the invitation of the Hon. Geo. Brookman. A very pleasant afternoon was spent looking over this gentleman's estate and inspecting the source of Adelaide water supply. Other amusements provided were a drive to Mount Lofty, afternoon tea at Mrs. J. W. Baker's, golf matches at Glenelg, and races at Morphettville.

On Sunday afternoon a number of the members accepted Mrs. J. S. Reid's invitation to afternoon tea at "Rosstrevor," Magill.

Exhibits of Pharmaceutical and Surgical Appliances.

In a basement room of the University building various exhibits of pharmaceutical and suitable preparations, surgical goods and appliances were on view.

Messrs. Fassett & Johnson, of No. 5-7 Barrack-st., Sydney, had an interesting exhibit of their different agencies, viz., Seabury & Johnson, Angier Chemical Co., California Fig Syrup Co., Murray & Lanman's Florida water, Argyrol, Thermogene & Emol Keleet, in charge of Messrs. B. T. Pryce and T. B. Moss. Messrs. Seabury and Johnson have introduced a good many new lines which were greatly appreciated by the medical profession, the name itself being a sufficient guarantee that all goods manufactured by them are absolutely perfect. Argyrol is a new silver salt, which contains 30 per cent. of silver, and has met with great demand from the medical faculty. Thermogene, a medicated cotton wool, is used for rheumatism, lumbago, etc., and we understand this line is enjoying a very large sale throughout the Commonwealth. "Emol Keleet," the well-known emollient and dusting powder, used in all cases of skin diseases, had especial attention. Angier's emulsion, California syrup of figs, and Murray and Lanman's Florida water are so well known as to need no further comment.

The well-known firm of Allen & Hanburys, Ltd., London, was represented by their manager for Australasia, Mr. A. J. Firkins. The display of surgical instruments of their own manufacture was very creditable, and made a good and bright exhibit. They also had on view a large assortment of their medicated throat pastilles, and their well-known medical soaps. A new line which the firm are introducing, viz., Allenburys' pancreatised milk and cereal diet was also brought prominently under the notice of members of the profession.

Messrs. **Burroughs, Wellcome** & Co.'s display of their goods was one of the most attractive exhibits. "Wellcome" brand chemicals excited much interest, some of the alkaloids being displayed to considerable advantage. Anæsthetists were particularly interested in "Wellcome" brand chloroform, a product containing a small but definite percentage of ethylchloride, which thus overcomes the difficulty occasioned by the variability of those chloroforms which do not contain ethyl chloride. Another interesting feature of B.W. & Co.'s exhibit was the display of some relic "tabloid" medicine cases. Many of these have been through the South African campaign, and although externally they show signs of rough handling, the contents are unimpaired. A "tabloid" Congo case, which has seen much rough service in the Spanish-American war, amply illustrates the durability and reliability of the "Tabloid" medicine cases for military field purposes. The firm also had a good display of their latest pharmaceutical products. On the walls were hung some remarkably fine photographs, the negatives and prints having been entirely developed with the "tabloid" photographic chemicals.

Mr. **Alwin Fischer**, of North Adelaide, had on view a very good collection of sterilisers, autoclaves, instrument cases, operating tables, water-heaters, etc., etc. All the goods shown were of local manufacture, made of first-class material, and of superior finish, either nickel-plated, silvered or enamelled. Several portable sterilisers and instrument sterilisers have also gained much praise from all who have inspected the same. There were also on view several designs of footgear lavatories, in which the turning on of a gas-jet for instantaneous heating and also the supply of hot or cold water, as well as the waste, is operated by pedals. The white enamelled tables, glass cases, two and three basin-stands and other similar fittings, helped to make up a very creditable display, which was critically examined and favourably commented upon.

Messrs. **Zoeller & Ross**, Ltd., Pitt-st., Sydney, had a nice, attractive and interesting display of their well-known lines, such as X-ray and high frequency apparatus, batteries, microscopes, surgical instruments, enamelware, hospital furniture, sterilisers, rubber goods, etc., etc., which elicited the favourable comments of the members of the profession.

The only exhibit which stands out prominently as being composed of Australian manufactures is that of Messrs. F. H. **Faulding** & Co., wholesale druggists and manufacturing chemists, of Adelaide, Perth, Sydney and London. This firm's name is well known in connection with the distillation of eucalyptus oil, their process for estimating the eucalyptol contents of such oil having been adopted by the British Pharmacopœia. The firm also exhibited specimens of their solyptol—a preparation containing 50 per cent. of eucalyptus oil in a soluble form—and solyptol soap, both aseptic-antiseptic preparations, largely in use by surgeons.

They also showed eucalyptus oil in the form of capsules. Faulding's milk emulsion is an elegant pharmaceutical preparation, containing a third of its weight in cod liver oil, and emulsified with glycerophosphoric acid and the hypophosphites of lime and soda. Milk emulsion is the most palatable preparation of its kind, owing to the method adopted in its manufacture, and although containing no added preservative, never goes rancid on exposure to the air, a strong recommendation in our warm climate. Chloroform for anæsthesia is a specialty with the firm, and their extract of malt, and maltenol—a combination of extract of malt and cod liver oil—are elegant preparations. Messrs. Faulding & Co. are the Australian agents for the H. K. Mulford Co., of Philadelphia, and make a choice display of their somnos, liquor diastos, predigested beef, etc., preparations that have a wide sale and are highly esteemed by the profession. They also are the sole Australian representatives of the Bovinine Co. of New York, whose specialty is also in evidence.

Messrs. A. M. **Bickford** & **Sons**, Ltd., of Adelaide, had a very large space fitted up with surgical goods and appliances. So exact had they been in the get up of their exhibit that even the table legs were made of splints, and the show tables were covered with surgical dressings instead of ordinary cloth. An electric steriliser hummed merrily away, and a large operating table, irrigating douches and surgical wash bowls of every description were shown. The latest designs of instruments, such as forceps, etc., occupied the whole space of one large case, the exhibit being under the care of the manager of their surgical instrument department, Mr. H. E. Gerhard, who delighted in showing his goods to the members of the Congress.

Messrs. **Oppenheimer, Son** & Co., Ltd., manufacturing chemists, London (awarded only gold medal, International Medical Congress), exhibited some of their pharmaceutical products, including palatinoids—a small cachet of soluble glycerine jujube which contains pure uncompressed drugs, volatile mixtures, and liquids in their natural state. They keep indefinitely owing to the impermeable coating of the glycerine jujube protecting the medicaments from the action of the air. Bi-palatinoids are similar externally to palatinoids, but an essential difference internally is supplied by a soluble septum of jujube which prevents interaction between readily oxidisable compounds until these bodies reach the stomach. Cocoids are small pastilles containing fixed quantities of medicaments carefully intermixed with a palatable chocolate basis. Other specialities exhibited were concentrated liquors, cream of malt, pinheroin, aërizer (an instrument which renders fluid like smoke and thus enables medicated vapours to be continuously inhaled without injury to the mucous lining of the air passages), renaglandin, hypodermic cases and cerettes.

Messrs. **Parke, Davis** & Co., manufacturing chemists and biologists, had a large and varied display of well-known products grouped in sections, prominent among which were the preparations of adrenalin chloride comprehending the ointment suppositories, inhalant and hypodermic tablets. Acetozone, the powerful germicide, which has already proved of great value, and whose use is extending in Australia in combating typhoid fever, dysentery and cholera. The agglutometer for diagnosing typhoid fever created considerable interest, and is sure to come into general use by the medical profession wherever typhoid fever prevails. Of especial interest was the cascara display. As now generally known, this firm first in 1877 introduced cascara segrada to the medical profession. The drug is now official in the British, Austrian and United States Pharmacopœias; it is one of the principal armamentarium of the physician. They have dealt with various preparations of this drug in fluid extract, tablet, cordial, aromatic mixture, evacuant pill, and solid extracts, and so forth. A huge sign relative to serums occupied a prominent position, and displayed beneath it were the entire group of serums known to science, among which were anti-diphtheritic, anti-streptococcic, anti-tetanic, anti-dysenteric, anti-tubercle, also veterinary preparations for the prevention of tetanus, toxins for erysipelas, and so forth. A splendid set of photographs illustrating the Biological Department at Detroit, U.S.A., gave a comprehensive idea of the vast scale in which modern scientific biology may be carried on. A very strong department was disinfectants. No exhibit could be more complete and so full of interest both to the physician and all interested in the attainment of a high standard pharmaceutical ethics. This firm first and alone began the chemical standardization of drugs, thereby ensuring reliable therapeutic agent of uniform strength and activity. They practically stand alone to-day on the physiological testing of drugs, which cannot be tested by chemical standardisation, and the activity of which depends upon the active principle contained in the drug. If past success is any criterion, no one engaged in chemical manufacture, bacteriological and biological investigation is more entitled to command the respect, sympathy and congratulations of the entire medical profession than P. D. & Co.

Mr. F. C. Strempel, the King William-st., Adelaide, Wholesale and Retail Depôt, had one of the latest American cases in which was displayed a select line of products of the firms of Parke, Davis & Co., Allen and Hanbury, Seabury and Johnson, Burrows, Wellcome & Co., and a varied assortment of various surgical, hospital and sickroom appliances, the whole making a very attractive display.

Mr. James Little, medical importer, Bourke-street, Melbourne, had a very interesting exhibit of medical books, published by W. B. Saunders & Co., conspicuous amongst which were "Howard A. Kelly on the Appendix," Ashton's "Practice of Gynæcology," Schultz and Stewart's "Atlas and Textbook of Topographic and Applied Anatomy," "Moynihan on Gallstones," Nothnagel's "Practice of Medicine," in 12 volumes, Saunders' Hand Atlas Series (26 volumes), "Diseases of the Liver, Gall-bladder, and Bile Ducts," by H. A. Rolleston, M.A., M.D. (Cantab.), F.R.C.P.

Messrs. D. Appleton & Co., publishers, New York, were represented in the exhibit room by their Melbourne agents, Messrs. Heyne & Co., who had a good range of their popular publications tastefully set out. This firm expect to have the following works ready at the end of the present year:—Kelly, "Gynæcology," ; Osler, "Medicine"; Butler, "Diagnosis"; Holt, "Diseases of Infancy"; Thompson, "Dietetics."

Much attention is given these days to the treatment of the skin, but what about the teeth? There is surely no greater personal attraction than pretty teeth, and even in these hurried times we ought to devote as much care as possible to their preservation. Of the numerous dentifrices now in use, few are likely to give more satisfaction than Odol, which, we are informed, has been highly praised by all sorts of notable people who use it constantly, and by doing so practise the most perfect hygiene of the mouth and teeth on the basis of modern scientific principles. Odol is really a delightful mouth-wash, cool, pleasant, and refreshing. Being an antiseptic, it counteracts causes of decay in the teeth, and moreover, renders the dangers of contracting infectious diseases very slight. Indeed, no better preparation for thoroughly cleansing the mouth and teeth of adults as well as children could be wished for than Odol, which is to be had from any chemist.—[Advt.]

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Harveian Oration—Mr. Chamberlain and Tropical Medicine—Plague in India—Royal Society's Conversazione—Registration of Nurses—Cavendish Lecture—Westminster Hospital Medical School—Health of the Army—The New Sydenham Society.

The Royal College of Physicians met on June 22nd in Pall Mall East to hear the Harveian oration, delivered by Dr. F. T. Roberts. Sir Richard Douglas Powell presided. Dr. Roberts gave many reasons for commemorating the immortal Harvey, besides his great discovery of the circulation of the blood. Harvey, he said, exhorted physicians to continue the work of research, and this had been done by the great body of medical men who had followed him. This brought Dr. Roberts to the subject of vivisection; he pointed out that anti-vivisectors had taken to patronising the medical profession as a whole, reserving their condemnation for the 300 vivisectors. But the 40,000 medical practitioners would decline to be separated from the vivisectors, and would stand shoulder to shoulder and show every sympathy with men whose great work had been, and was, of incalculable service to medical science and to humanity. Harvey would be amazed at the extent and thoroughness of the manner in which his exhortation to search out the secrets of nature was being carried into effect at the present day. The older Universities had been roused into activity, and independent laboratories for pathological work had been established in various parts of the world. Investigators should strive after truth alone, and not merely try to gain popularity or to take up research as an amusing occupation. A great debt of gratitude was owing to those who had inquired into malaria. Their devoted labours were performed under circumstances involving severe trials and great personal dangers, often leading to the sacrifice of life and health. Some there were who had actually risked and lost their lives through permitting experiments to be made on themselves. Another exhortation of Harvey was that medical men should live in a state of brotherly love, respect, and esteem. They might congratulate themselves that a spirit of good fellowship prevailed among the members of the Colleges of Physicians and Surgeons. At the conclusion of the address the President presented the Bisset Hawkins memorial gold medal to Sir Patrick Manson for the services he had rendered to science, public health, and to humanity by his researches into the pathology of tropical diseases. The Baly gold medal was handed to the registrar to be sent to Professor Pavlow, of St. Petersburg.

A dinner promoted by the Seamen's Hospital Society, in aid of the London School of Tropical Medicine, was held at the Hotel Cecil on May 10th. Mr. Joseph Chamberlain, M.P., presided, and the Grand Hall was filled to its utmost capacity by a large and distinguished company. In proposing "The London School of Tropical Medicine," Mr. Chamberlain said that he thought his hearers would be inclined to agree with him that attendance at a great public banquet of that kind, or, at all events, any inordinate addition to such festivities, was really inconsistent with the position of an advocate and supporter of preventive medicine; but although on that account he had felt bound to decline very numerous invitations from too hospitable friends, he could not resist the temptation to repeat the experience of six years ago, when he presided at a similar banquet, and when they established that schoo

Now he came back to them to rejoice in their past success and to provide for their future. His interest in that great question was unexhausted, and, indeed, unabated. It was a privilege, as well as a duty, to be in any way associated with it. It was a privilege, because he could not himself think of any subject of scientific research and philanthropic enterprise which was more interesting, and it was a duty which we owed to the Empire from which we could not divest ourselves, whatever our political opinions might be. In the expansion and development of the Empire there was an influence at work which made it impossible for us to stand still. Where the British flag was planted there must be established the British peace, and barbarous methods must be abolished, and law and order substituted for anarchy. We were unable, therefore, to stay where we began. Whatever the beginning, we must go on until something like rough justice and order had been introduced into the territory for which we were responsible. Hence many little wars, much to be regretted, but after all to be taken into consideration in connection with the result. The balance was a balance of good, and for one wrong that might have been committed, enormous benefit had been conferred upon the people. If they took every life lost in the whole series of those campaigns, it would not approach to more than a fraction of the number of the native population that were destroyed every year before our advent. By whom had that work been done? These miracles had been wrought by a mere handful of men, mostly very young, brought suddenly into the presence of great responsibilities, having to deal with crises of administration, of disease, of savage aggression—every problem of statesmanship. They had risen to the occasion with a courage and a resolution and a resource which proved that we still have among us the children of those who had gone before, who had presided over the infancy of the Empire, and that they still possessed those ancient qualities which had made our nation great. Many pioneers had suffered from our ignorance of the new conditions to be faced and our inability to deal with them, and many had sacrificed both health and life in their devotion to duty. Such sacrifices must be faced. It was a necessity of the part we had to play; but it would be pitiable, it would be shameful, if we allowed these sacrifices to grow for want of any preventive precautions upon our side. Our first duty was to do all that was in our power in order to reduce this blood tribute that we paid to the Empire, to reduce it to the uttermost. M. Pasteur, he supposed, laid the foundations for all the recent work of scientific research, and the work had been continued both abroad and at home by men whose names would be remembered amongst those of the greatest of our philanthropists and men of science. In connection with tropical disease, we should never forget the names of Sir Patrick Manson, Professor Haffkine, and many others. The London School of Tropical Medicine was established at a cost of £30,000, a considerable portion of which was provided by Government and colonial assistance, some by private subscription, and some, unfortunately, by loan. It held accommodation, in the first instance, for 20 students and six residents. Since that time the accommodation had been increased. Altogether 503 students had passed through the school—223 sent by Government, 157 private students, 59 foreign students, and 54 missionaries. We had to thank private benefactors for several useful expeditions, but there was still more reason to be grateful to those who had taken an active part in them, not concealing from themselves nor flinching from the dangers which they involved. Such expeditions were, in many cases, more dangerous than war; surely they were not less honourable! Mr. Myers, Dr. Dutton, and others who had fallen victims to their unselfish enthusiasm in the pursuit of science were true martyrs to humanity. How should we honour their memory? What statues or monuments should we erect? Surely there could be no better expression of our feelings than to enable the work to which they gave their lives to be continued and extended. The London committee asked for the sum of £100,000, and if he might make a comparison between London and Liverpool, it was a mere drop in the bucket in comparison with the Liverpool subscription. They asked for £100,000 to repay the debt, to make a proper provision for the teaching, and, above all, to subsidise research. He confessed it seemed to him that there could not be a more desirable application of superfluous wealth than to enable that institution to unite the work of the investigator and the work of the physician, which was, after all, the ideal union between scientific inquiry and its practical application. He asked them to sympathise with those workers of our Empire who had already done so much to secure its renown and who had contributed, and were contributing, to the happiness and welfare of the vast populations which we had governed together under the protecting influence of a single flag. During the evening subscriptions and donations amounting to over £10,000 were received.

At a meeting held early in May at the rooms of the Society of Arts, under the presidency of Sir Dennis Fitzpatrick, an interesting paper on the Indian plague was read by Dr. Charles Creighton. He pointed out, with the aid of a map, that in 1898 the plague-stricken area was comparatively small, but it was now enormous. Last year the deaths from plague in all India were about a million, of which nearly four hundred thousand were in the villages of the Punjab, and three hundred thousand in the villages of the Bombay Presidency. The enormous and steady prevalence of plague among the rural population was perhaps the most remarkable fact in the science of epidemiology, because 20 years ago people had begun to look on plague as a thing of the past, and at no previous time was India considered a great seat of the disease. Discussing the causes of plague, he showed that where it was most deadly the houses were close together, and where it did comparatively little harm the dwellings were scattered. Some houses which had proved favourable to the disease had neither window nor back door; others were really cells in a common building; others, again, were largely below the level of the general surface, muddy clay dug out of the ground having been erected as walls round the pit thus made. After seeing many of "those dreadful mud villages," he had come to the conclusion that they were the real reason why the Indian plains were cursed with plague.

The first of the two annual soirées of the Royal Society was held at Burlington House on May 17th. Sir William Huggins, P.R.S., welcomed the customary brilliant assemblage of Fellows of the Society and their guests. The exhibits were chiefly remarkable on the physical side of science, and both in number and interest were fully reflective of recent work. First of them, in order of numbering, were pieces of glass brought together by Sir William Crookes, and lent by several investigators. These showed the effect that light and the emanations of radium have on glass. Glass is affected by sunlight, though very slowly. Windows with a southern aspect may become gradually violet owing to the manganese in them; and it has sometimes been urged that the beauties of old stained glass have been produced by the artificer Time, and can be obtained in no other way. The object of Sir William Crookes' comparisons was largely to show that radium emanations will produce similar effects in the colouration of glass to those brought about by sunlight, but they will produce those effects very much more quickly. A few days of radium are equal to 50 years of sunlight. The most striking demonstration in the lecture-room was Sir Oliver Lodge's elaborate arrangement to show the use of electric valves for the production of high-tension continuous current. These valves entrap a portion of electricity by permitting its passage in one direction and stopping its return. They can, therefore, be employed to accumulate electricity, which may be applied to various uses, among others the separation of metallic fumes and the dissipation of fog. All this was shown in a very striking fashion by Sir Oliver Lodge. By means of the society's electric lantern, Mr. Percival Landon exhibited some of the fine photographs taken during the mission to Lhassa, and Dr. E. A. Wilson a selection from the many photographs taken by the National Antarctic Expedition. There were also on view Professor Fleming's cymometer for the accurate and almost automatic measurement of the Hertzian waves used in wireless telegraphy, together with a new oscillation valve, which makes ordinary electric oscillations measureable on a galvanometer by separating out the two opposite currents in an electric oscillation. An exhibit of great scientific interest was the instrument which Professors Nichols and Hall have used for measuring the pressure of light. This consists of a small torsion balance, which swings in a vacuum, and on which a beam of light is thrown. The experiments were remarkable for the wonderful accuracy of their measurement. The results obtained correspond to within 1 per cent. of what should have been arrived at theoretically, according to the theories of Maxwell. More curious was the instrument of another experiment which Professor Nichols showed in action for illustrating the repulsion of comets' tails by light. In this instrument, which was a kind of vacuum hour-glass, sand and some very light puff-ball spores ran through the neck. When a beam of light played on the mingled sand and seed spores, it separated the two, and "blew" out the seed spores. On the biological side, Professor J. B. Farmer and his colleagues showed the structures found in malignant tissues, generally known as Plimmer's bodies. These structures have hitherto been regarded as parasitic organisms, or as specific peculiarities always associated with malignant growths. Professor Farmer has now shown that they are only a stage, or a characteristic of a stage, in the usual reproductive methods of cancer cells. The discovery is perhaps to be regarded as another nail in the coffin of the germ theory of cancer.

The principal witness on May 18th, before the Select Committee of the House of Commons on the subject of the registration of nurses, was Sir Victor Horsley. He said he represented the British Medical Association, which consisted of nearly 20,000 practitioners, and which had passed a resolution approving the principle of registration, but had not committed itself to any details. Notice had been given by one division of the association to move to rescind the resolution of approval, but it was not likely to be successful. He did not believe the difficulties of revising the register were such as to outweigh the benefits of registration. He would like to see the control of a central board established for disciplinary purposes. Registration would not bring the nurses into competition with the doctors more than now. There should be an examination of nurses by a statutory authority, passing which would entitle a nurse to be registered at a fee of two guineas, no charge being made for examination. It would be useless to register the training school or institution instead of the nurses, as that would practically put the present system on a statutory footing. The main objection to that system was that the control of a number of nurses in respect to their relations with the public rested with private individuals—the heads of the nursing establishments. It was, however, important, from the point of view of public safety, that nursing homes where patients were received should be registered. The ideal of his association was that it should be penal for anyone to nurse for gain in illegal competition with trained and registered nurses. On May 26th Sir Henry Burdett gave equally strong evidence against the proposel for registration. It had been stated, he said, that 60,000 persons would register at once, either as trained nurses or as women who could satisfy the board that they were *bona fide* in practice before the Act passed. The consequence of letting loose on the public thousands of women who had never been trained, but who had been registered as nurses, should give the bravest cause to think. In his opinion all training schools for nurses and all hospitals and institutions with trained nurses should be registered and inspected, the registration to be conditional on the training fulfilling the standard laid down, and upon examinations being held. The main cause of the present evil was the private adventure nursing homes, which netted large profits and made the pseudo-nurse possible. The greater the demand the more variegated the supply of nurses from these places. It was a very great temptation for anyone who took on this business, and found how profitable it was in times of epidemic or great pressure to send out women to private houses without sufficient inquiry into their credentials.

The Cavendish lecture was delivered to the West London Medico-Chirurgical Society by Dr. Goodhart on June 23rd. His remarks, which were addressed to the public as well as to the profession, contained a wholesome admonition against the evils of over-treatment in heart disorders, and especially against the harm of magnifying the importance of functional symptoms. Commenting on the way the terms "dilated heart" and "heart strain" were abused, he said that the last case he had was that of a young man who complained that he had strained his heart while rowing three years ago, and that that organ still "ran away" if he did anything violent. The truth, however, was that the man was a weakling, with no disease of the heart. The treatment for it, if it could be adopted, would be to send him rough riding over a cattle ranch for a year or two, for his heart and muscular system needed more work, and not less. He expressed a strong opinion that the principle of rest should be dealt with less extravagantly, and he commended the value of a cheerful prognosis. According to Dr. Goodhart, "we do far more good by pronouncing people sound, even if out of health, and thus sending them forth with renewed hope, than by keeping them in the chains of uncertainty and nervous dread, than which nothing can be more crushing to the utility of life or more harmful to the chance of regaining health. I know of no symptoms of a 'weak heart.' Yet the use of the term leads either to a state of nervous dread, from which recovery is most difficult, or else to a life of luxurious idleness, which, by the enervation it causes, is likely sooner or later to be precedent to the end it would seek to avoid."

In compliance with the recommendation of the London University, that greater efficiency in teaching as well as increased economy in expenditure will be effected by the concentration of the teaching of the preliminary and intermediate subjects of the medical curriculum in London at a few centres, the Westminster Medical School has completed arrangements with King's College for the teaching of physics, chemistry, anatomy, physiology, and materia medica to Westminster Hospital students at King's College. Students will enter at Westminster Hospital as before, and will not become matriculated students of King's College, but they will be taught the subjects of the preliminary and intermediate examinations at that institution. It is proposed to bring the new scheme into effect at the commencement of the next winter session. Coincidently with this change, the Westminster Hospital Medical School is undertaking a complete reorganisation of its teaching in the subjects for the final examination. This is a first and important concession to the views of those who believe that the preliminary and intermediate subjects ought to be disassociated from the clinical and practical side of the medical curriculum; but in his eloquent oration to the Medical Society on May 15th Mr. Henry Morris had much that is suggestive and convincing to say on the other side of the question, and there are many who will agree with him that even if such a change is expedient it is not necessarily wise.

The Army Medical Department report for 1903, submitted by the Director-General, and just published, contains some interesting statistics concerning the health of troops serving at home and abroad. The troops serving in the United Kingdom in 1903 numbered 110,565; the admissions to hospital, 64,892; deaths, 451; invalids, 2888; and constantly sick, 3895. Comparing these figures with those of the previous year, it is observed that in England and Wales both the admission and death rates show a considerable decrease. In Scotland the admissions to hospital are less, but the death rate is higher. In Ireland both the admissions and death rates are lower. Of the diseases, beginning with eruptive fevers, scarlet fever had the most cases. They numbered 290, with five deaths. Of measles, there were 109 cases and no death. There were but two cases of smallpox during the year. Of other diseases, influenza takes first place, there having been 1571 cases with but 2 deaths. Of enteric fever there were 92 cases and no less than 28 deaths, a large percentage. Diphtheria had 32 cases and 2 deaths. Dysentery numbered 94 cases and 1 death only. Of malarial fevers generally there were 855 cases, but no death is recorded under this heading. Of septic diseases there were 69 cases and 11 deaths. Regarding the incidence of disease by districts, Aldershot comes first. Altogether the showing is satisfactory. The report is full and voluminous, and includes complete records of the health of every home and foreign station where British troops are serving.

The Council of the New Sydenham Society announces some important alterations in its method of book distribution. In future all members, new as well as old, will be entitled on payment of a year's subscription to choose one volume from the surplus stock, in addition to the works issued for the year. Part of the society's library has for long been out of print, but there remains on hand a large number of works—many of them of great permanent value—from which subscribers will be at liberty to select the book of their choice. If a work of more than one volume is desired, the payment of one or more subscriptions in advance will enable members to secure all at once. The Council proposes to keep back a certain number of the surplus volumes for future requirements, and the advantages now offered will necessarily cease in the case of each work when that minimum is reached. The number at present on hand varies greatly in different works, and, as regards some of the most valued, may soon be exhausted. Under another regulation the Council now allows members to select any seven of the society's volumes for a single guinea. In order to meet the increasing demands of the office and to secure more punctuality in the discharge of its duties, the Council has appointed Dr. Alfred E. Russell, of 9 Wimpole-street, London, W., as acting general secretary, to whom in future all letters of enquiry should be addressed. Mr. Jonathan Hutchinson has consented to retain the position of honorary general secretary at least for a time. The preparation of the Clinical Atlas remains in the hands of a representative committee, and the Society's agency is, as heretofore, at Messrs. Lewis & Co.'s, 136 Gower-street, London, W.

Victoria.

(FROM OUR OWN CORRESPONDENT.)

Caution to an Anæsthetist—The Secret Commissions Bill—Proposed New Medical Curriculum at University—Accommodation for Consumptives.

DURING the last two months the medical profession in Victoria has been the victim of what cannot be otherwise described than as two gratuitous insults at the hands, or rather tongues, of public men. In the first case the District Coroner (Dr. R. H. Cole), in the course of an inquest upon a death occurring during an operation at the Alfred Hospital, saw fit to administer the criminal caution to Dr. W. W. Hearne, the anæsthetist. According to the evidence given at the inquest, operation had been twice postponed owing to the condition of the patient. At last the patient was in such agony that he begged the surgeon to do something. On the great risk being pointed out to him his answer was, "For God's sake do something." The risk of operation was great, but there was a possible chance of relieving an otherwise necessarily fatal condition. The Coroner adjourned the inquest to get the evidence of the nurses present at the operation, and even asked a pupil nurse particulars as to the anæsthetic used and the method of administration. He then asked Dr. Hearne whether he wished to give evidence, and administered the caution. Dr. Hearne protested against being thus singled out from the witnesses where there had been no evidence whatever of any want of care or skill on his part, and said that he had no special wish to give evidence, nor would he refuse to give evidence. The Coroner then made some most injudicious remarks about the carelessness he had witnessed in his student days in the giving of chloroform, presuming that things were no better nowadays. He then, without taking Dr. Hearne's evidence, closed the case and brought in a verdict of "Death from chloroform poisoning, due to misadventure." Does not this verdict in itself stamp the man as wanting in judicial reasoning? What evidence had he that chloroform was the anæsthetic used? Merely that of the nurses. The only one who could swear to the anæsthetic was the administrator, whose evidence was not taken. As a matter of fact, as came out at the deputation of medical men to the Solicitor-General, the patient was under the influence of ether at the time of his death. The daily press of Melbourne were unanimous in their condemnation of the action of the Coroner, and all the medical societies passed strong resolutions supporting Dr. Hearne in his protest. Later, a deputation of about sixty medical men waited upon the Solicitor-General on the matter.

The deputation was introduced by Dr. W. H. Embling, M.L.C., and the principal speakers were Dr. J. Jamieson, Mr. G. A. Syme, President of the Medical Defence Association, and Drs. Rothwell Adam, Jeffries Wood, H. W. Bryant, and D. Murray Morton. The reply of the Solicitor-General was that while he sympathised with the deputation, the Coroner was quite within his discretionary powers in his action, and that the Ministerial head could not in any way interfere with the Coroner in his judicial capacity. Now, if the Coroner persists in his attitude there is every reason to expect that it will have far-reaching effects, especially upon the administration of anæsthetics in charitable institutions. If medical men are forced to the conclusion that their reputations may at any time be at the mercy of the discretion of a Coroner who cannot exercise it judiciously, they will cease to give their services as anæsthetists in an honorary capacity, and the institutions and the public will suffer. We realise that the discretionary powers of a Coroner must of necessity be comprehensive, and we ask for no special privileges as a profession; but we do ask that their powers be exercised with tact and understanding.

When introducing the Secret Commissions Bill in the Legislative Assembly a few weeks ago a member of the State Government, Mr. J. E. Mackey, said that it was quite usual for chemists to allow medical men 25 per cent. on all prescriptions dispensed on their recommendation. In reply to this, letters have appeared in the daily press over the signatures of the Hon. Sec. British Medical Association and the President of the Medical Defence Association pointing out that the receipt of such commission is a serious breach of professional ethics. Mr. Mackey has been asked to supply any specific instances which may have prompted his statement in order that further action might be taken by the medical profession.

The proposed new medical curriculum in the University of Melbourne, the main points of which were summarised in our July issue, has been received with marked approval by teachers and students alike. The only point which the students are doubtful of is the advisability of holding the qualifying examinations at the end of the fourth session and the final honour examinations concurrently. This may prevent a candidate who is not sure of himself (and who can be in a final examination?) from attempting honours. It has been suggested that the pass papers should be treated as first honour papers, and second honour papers be taken some weeks later. There are various other ways in which the difficulty might be overcome.

The question of the accommodation of consumptives is still agitating the minds of all concerned. The Government have asked the metropolitan hospitals to provide accommodation for early cases pending their removal to sanatoria or to act in an educative way before sending them back to their homes. So far so good, but this does not get over the main difficulty, viz., that there is at present no adequate accommodation for advanced cases of phthisis. These surely are the cases which constitute the greatest menace to the public health. The inadequacy of the accommodation is clearly seen in the report of a meeting of the committee of the Austin Hospital on August 10th. There were no less than 49 applicants for admission. The committee decided to make use of all the verandah space available; but, even so, they could find room for only nine of these cases. And still the Kronheimer wing stands empty! The Board of Health has approved of the wing and disclaims all responsibility for the deadlock. When will the Government awake to an appreciation of the urgency of the situation?

South Australia.

(FROM OUR OWN CORRESPONDENT.)

Hospital Abuse—A Railway Ambulance Carriage.

In my last letter it was mentioned that a sub-committee had been appointed by the Adelaide Hospital Board to consider the question of hospital abuse. This committee has since reported to the board, and the following extracts are taken from the report:—"Of the inmates of the Adelaide Hospital, 75 *per cent. were admitted on the orders of medical practitioners,* and these included a considerable proportion of cases which, in our opinion, may be considered unsuitable on the score of being persons who, owing to their pecuniary position, ought not to receive medical charity. It is in cases requiring surgical operation that the abuse of the hospital seems most prevalent. In our opinion this may be accounted for by the following causes:—1. Many surgeons, knowing that the best results may be obtained by this course, insist that patients requiring operative treatment shall enter a private hospital, and if they say they cannot afford to do so an order for the Adelaide Hospital is given. Many of the patients could afford and would readily pay the surgeon's fee, if not at the time by instalments, but they cannot afford in addition the expense attendant on residence in a private hospital. 2. Country practitioners, who for various reasons are unwilling to undertake operations, send their patients to the hospital instead of putting them under the care of an Adelaide surgeon. 3. Patients who are unable to pay the fees of leading surgeons, but who could afford those of younger but very efficient ones, often find their way into the hospital. In the opinion of your committee, inability to pay for *adequate* treatment should be the consideration for the admission of all patients requiring hospital treatment." In discussing the question whether any charge should be made to hospital patients, the report says:—"This is a question on which there is considerable diversity of opinion. The feeling of the medical profession as a whole is against any payment. It is felt that patients who could afford anything over £1 a week, as a rule, are not entitled to medical charity, and that it would be truer charity to allow those who cannot afford this sum to retain their money. Moreover, no matter how small the sum given, patients generally consider that they are paying for the services they receive. Lay representatives view the matter in a different light. They say that often the money is subscribed by friends of the patients, and that in the case of a single man the patient should pay for his maintenance if he has the money to do so. Moreover, the hospital cannot afford to lose the money obtained through such payments (in the case of the Adelaide Hospital nearly £800 per annum)." The report recommends that the hospital should be regarded as a charitable institution, and no payment should be demanded from patients except in exceptional cases, in which a maximum fee of 3s per diem may be charged. The report discusses the question whether orders should be abolished, and decides in the affirmative except in the case of contributors, who have a right to receive certain orders for certain sums of money contributed. The committee recommended that the hospital collector should be empowered to investigate the circumstances of all applicants for attendance at the hospital, and that when in an emergency accident case the patient belongs to a friendly society or can afford to pay for treatment, first aid only and no subsequent treatment should be given. This report, which is not characterised by any startling proposals, was almost unanimously rejected by the board.

Hitherto the Railway Department has not been provided with a suitable ambulance carriage, and the want has been keenly felt at times. This defect has now been remedied. The Chief Mechanical Engineer has designed and constructed a carriage which does his department credit. The carriage was on view during the sitting of the Medical Congress. The ward for the reception of the patient is situated in the centre of the carriage. It is extremely roomy. The woodwork has all the corners and angles rounded. The entrance door is very wide, so that a patient on a stretcher can be conveniently and comfortably moved. A cupboard, which contains an ice-chest, is provided for lotions and dressings. The bed is similar to those in use at the Adelaide Hospital. Three comfortable cane-bottom chairs and a bed table comprise the remainder of the furniture. A lavatory leads off one end of the ward; it contains w.c., bed-pan on rack, and flushing apparatus and a washstand. The walls of ward and lavatory are painted white; they are lit by electric light. In summer the ward can be cooled by three electric fans, and warmed in the winter by an electric radiator. Water is laid on and can be boiled by electricity. The drinking water is passed through a Berkfeld filter. At one end of the carriage is a compartment for the stretcher, luggage, and the porter. It can also be used for disinfection purposes. The other end of the carriage is occupied by a compartment and lavatory for the friends of the patient.

THE TREND OF MODERN MIDWIFERY.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—So long as "Practice" sticks to the old teaching so long will sepsis be with him. My paper was an attempt to prove that sepsis and other ills were caused by useless delays in labours. "Practice," with his own experience, backs me up in this, although of course he will say he does not. However, his letter speaks for itself. He hints that I do not have sepsis because I do not look for it. I should say sepsis does not need much looking for. Phlegmasia dolens and mastitis, *e.g.*, soon discover themselves. I think, however, that "Practice" misunderstands me in one particular. I repeat I have no sepsis in my practice, but that means cases I personally attend. I see plenty of sepsis after labour in cases I have not attended. "Practice" admits he is driven to extract placenta manually sometimes. I wonder why, as he says he never has any p.p. hæmorrhage. If "Practice" will look up the papers I mentioned he will find how many torn perinea I have had. I do most unhesitatingly say I have seen more torn by nature than I have torn myself. My record is a well-known one. In this district, where everybody knows everything about everybody else, statistics of midwifery cannot be cooked without detection.—I am, etc.,

Sept. 2, 1905. JAMES R. PURDY.

A DISCLAIMER.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—On my return from Adelaide to-day I had my attention called to an article in one of the daily papers, published a few days ago, giving my opinion upon appendicitis, with my name in large type. This was published without either my knowledge or consent.—I am, etc., R. STEER BOWKER.

Sydney, Sept. 16th, 1905.

OBITUARY.

WALTER GEORGE PLUMMER, L.K.Q.C.P.I. (1869), Brushgrove, N.S.W.

Walter George Plummer, of Brushgrove, Clarence River, died on August 13th in Grafton Hospital, *æt.* 60. Dr. Plummer was a son of the late Rev. Thomas Fitzgerald Plummer, and was born at Newcastle West, Limerick, Ireland. He took his diplomas in 1869, and until he finally settled in Brushgrove, about 11 years ago, he lived a roving and interesting life. One of his first professional engagements was for a three years' tour through almost every country in the world as companion and mentor to a son of the late Lord Gifford, the distinguished Scottish Judge. Later he for a few years served in the Imperial Navy, and as surgeon to warships visited Sierra Leone, Zanzibar, and other places which are rarely visited by travellers. A four years' engagement with the Government of Chili followed. He saw active service, being present at the memorable engagement between the "Blanco Encalado," of Chili, and the "Huascar," of Peru-Bolivia, and in which the latter ironclad was sent to the bottom. After this Dr. Plummer entered the Pacific-Orient service. He travelled to South American ports for some time, and here his colloquial knowledge of the Spanish language was of great service to him. Later he joined the Australian boats and became known as surgeon to the Liguria and Orizaba to thousands of Australians. For some years "Plummer of the Orizaba" was widely known in Australian ports. He used at that time to jokingly tell the present writer of a particularly potent pill he had invented for sailors' use. This he called "Plummer's patent peristaltic persuader." He, however, was too ethical to float himself into a limited company, and so the pill lapsed into oblivion. Dr. Plummer was a confirmed bachelor and had no relatives in Australia. He was a man of retiring habits, although a most entertaining conversationalist. His kindly sunny nature and his genuine generosity of heart won the love of all who knew him.

T.J.H.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, Medical Officer of Health, reports for the month of August that the registered deaths of residents in the metropolitan municipalities (Sydney and suburbs), exclusive of patients in Gladesville and Callan Park Hospitals for the Insane, numbered 502. This figure represents an annual death rate of 11·39 per 1000 of the estimated population, which rate, when corrected for the metropolitan share of the deaths in hospitals for the insane and benevolent asylums for the aged and infirm, becomes 12·30 per 1000. Diarrhœal diseases (diarrhœa, dysentery and enteritis) contributed 13 deaths. This is below the quinquennial average for the month of August. Nine deaths were under 1 year. The principal zymotic diseases, exclusive of diarrhœa, caused 11 deaths, 7 being due to diphtheria, 3 to typhoid fever, and 1 to scarlet fever. The mortality of diphtheria was high, though the incidence was not excessive. There were 11 deaths from puerperal fever. Influenza caused 13 deaths, a considerable increase over last month. All deaths were in persons of advanced years. Phthisis caused 30 deaths, being less than the average mortality (42) for the month. Respiratory diseases contributed rather more than usual, pneumonia causing 63 deaths and bronchitis 33 deaths. Bright's disease 29 deaths, and diseases of the heart and blood-vessels yielded an average mortality. The deaths of infants under 1 year amounted to 84, which gives an infantile mortality rate of 65·6 per 1000 births. This rate is the lowest for the month for some years. The chief causes of infantile mortality were prematurity 20 deaths, developmental diseases 32 deaths, and enteritis 9 deaths. Notified attacks of the notifiable infectious diseases numbered in all 230, of which 122 were due to scarlet fever, 70 to diphtheria, and 38 to typhoid fever. The typhoid returns are much above the average for the month.

Victoria

Treatment of Consumptives.—Dr. Norris, Officer of Public Health for Melbourne, recently addressed the Hawthorn Ladies' Benevolent Society at its annual meeting, and the Public Health Department has since issued a circular to the various municipal councils pointing out the need of providing for cases of advanced pulmonary tuberculosis, either separately or in conjunction with neighbouring councils, small invalid homes for the segregation of such cases. Pending the establishment of such invalid homes, the board urged the councils to appoint a female visitor, or inspector—a specially informed person, preferably a trained nurse—to inspect the homes of consumptives in the district. The circular stated that tuberculosis was a parasitic disease, and it was within the power of man to cause all parasitic diseases to disappear from the world. The Camberwell and Boroondara Council, in discussing the circular, referred it to their health officer for report.

Tasmania.

Hobart Local Board of Health.—At the last meeting the health and sanitary committee recommended that a "Reck" disinfecting machine be purchased and erected on the land reserved for sanitary purposes at the rear of the slaughter-house, at an estimated cost of £650. The sum named included the expense of a building to put the machine in. The recommendation was adopted. The same committee also recommended that, in accordance with the suggestion of the City Health Officer, a circular be sent to all medical practitioners in Hobart, requesting them to communicate privately to the health officer the existence of any cases of pulmonary tuberculosis which might come under their observation, in order that, where necessary, steps might be taken to prevent the spread of the disease.

HOSPITAL INTELLIGENCE.

Sydney Hospital.—A number of important alterations and improvements have recently been carried out at the Sydney Hospital. The whole of the interior of the new wards, lobbies, and staircases has been painted; the prevailing shade throughout is light green, relieved with a white dado about 5 ft. high, and white window blinds have been replaced by green ones. The work has occupied some four months, and cost £713. Wooden balconies have been rebuilt and painted at a cost of £144. Machinery for the new laundry, at a cost of £875, is expected shortly, and will be immediately placed in position in a building specially constructed for the purpose. To provide the additional steam and hot water necessary, a new "Hornsby" boiler has been installed, the present two Cornish boilers being left intact to provide for emergencies. Recently a sum of £240 was spent in installing a system of "Grinnel drenchers" to protect the hospital from possible fire at Parliament House. New fire hose and hydrants have been fitted under the advice of the officers of the Metropolitan Fire Brigade, one of whom inspects the hospital each week, and two telephones direct to the head fire station have also been fitted up. It is estimated that in 3½ minutes from giving an alarm the first fire engine should be at the hospital at work. At the last monthly meeting of the board of directors accounts amounting to £1877 11s 8d were passed for payment. A communication was received from Mr. Alexander Gillespie, forwarding £75, on account of a legacy of £100 under the will of the late John Gillespie, and a cheque for £501 16s 2d was received from Messrs. Norton, Smith & Co., representing a legacy (£500) with interest (£1 16s 2d) from the estate of the late W. E. Sparke. In reply to an inquiry from Mr. Peter Gornall as to the intentions of the board regarding the Regent-street Branch Dispensary, it was decided that if a suitable piece of land is obtained and given to the hospital, the hospital will undertake to erect a suitable dispensary building, as was done at Paddington. The president reported having interviewed the Hon. W. T. Dick, as representing the Premier, on the subject of the proposal to close the Moorcliff Ophthalmic Branch of the hospital, and other matters, and stated that no official reply had yet been received from the Government. Dr. F. G. Griffiths was appointed acting honorary pathologist during the absence on leave of Dr. Sydney Jamieson.

Melbourne Hospital.—The Melbourne Hospital has now received the official designation of "Royal." As the result of a suggestion by the late president of the committee, Mr. F. R. Godfrey, the Governor-General was communicated with, and asked to obtain assent for the prefix. At the last meeting of the committee a letter was read from his Excellency notifying them that the King had been pleased to assent to the term Royal being applied to the hospital. As there was some doubt whether the adoption of the prefix might affect the institution in regard to its trusts and bequests, it was decided to obtain legal opinion before adopting the new title.

Queen Victoria Homes for Consumptives' Fund.—Renewed efforts are being made to provide for the treatment of early cases of pulmonary tuberculosis by the committee of the Queen Victoria Homes for Consumptives, in taking in male patients at Wentworth Falls, N.S.W., and female patients at Thirlmere. The residents of Katoomba recently contributed £35 for an open shelter; Manly, Woollahra, Randwick and Goulburn contributing £40 and £50 each to the costs of beds at the two homes, while Homebush and Strathfield ladies have again made a donation of £100. At the last monthly meeting of the house committee accounts were presented and passed for payment amounting to £498 19s 10d. The medical superintendent's report at the Sanatorium showed that there were 43 patients in residence. During the month 10 cases had been admitted and 8 discharged. Of the latter, one was unimproved and 7 had the disease completely arrested. The matron's report, Thirlmere, showed that there were 27 patients at the home. During the month one female patient had been admitted and 9 patients discharged.

Royal North Shore Hospital, Sydney.—At a committee meeting of the Royal North Shore Hospital held on Thursday evening it was announced that a sum of £620 had been collected as a result of the special effort made by Mesdames Royle and Dibbs a short time ago. These ladies received the thanks of the committee, who recorded their appreciation of the good work accomplished.

Temora Hospital, N.S.W.—A deputation recently waited on the Chief Secretary representing the committee of management of the Temora Hospital, with a request that a special grant be made to the funds of the institution. The hospital was totally inadequate for the district, and an architect had reported that the building was of such a character that it would be a waste of money to try and renovate it. The committee, however, thought if the Minister would give them £150 they would try and do something in the way of reconstructing the place. Mr. Hogue promised to take the matter into consideration.

Auckland Hospital, N.Z.—The annual statement of receipts and expenditure of the Auckland Hospital and Charitable Aid Board for the year ending March 31st, 1905, was presented by the chairman at the last ordinary meeting. The statement shows the total receipts for the year to have been £30,845 17s 2d—£9237 4s 7d of which was received from local bodies, including £4052 18s 9d from the Auckland City Council. The Government subsidies amounted to £11,042 11s 8d, made up on: Local bodies' contributions, £10,380 2s 7d, as against £10,875 in the previous year; voluntary contributions reached £137 13s 8d, as against £93 in 1903; £424 15s 5d on benevolent societies' grants, as against £95 in the previous balance-sheet, and a special grant of £100 for road purposes. The receipts from fees at the hospital amounted to £5554 15s 1d, and the contributions from benevolent societies, £384 10s. The chief items of expenditure were: Salaries, £4107 2s 1d, as against £3862 in 1903; drugs and druggists' sundries, £1076 11s 7d, as against £1774 on the previous statement. The doctor's residence is set down as costing £1447 8s 1d, and the new operating theatre, £1755 8s 4d. The balance in hand at the end of the year was £2153 8s 6d. Eighteen hundred and twenty-five patients had been treated in the hospital during the year, of whom 1493 had been discharged, 170 had died, while the remainder (162) were still under treatment in the institution. The daily average number of patients in the hospital was 168; the average stay, 34 days; and the average cost, 5s 2¾d per day.

Hobart Hospital.—At the monthly meeting of the board of management of the Hobart General Hospital, held last month, it was reported that during the month 191 patients had been treated in the hospital; discharged, 100; died, 9; leaving 45 males and 37 females under treatment on August 1st. The daily average number of occupied beds was 84, as compared with 87 in July last year, and 81 in 1903. In the out-patients' department 143 new cases were treated; casualties, 18; total attendances, 500. The following report of the medical committee was adopted on the moton of Dr. Crowther:—"As requested by the board of management, the medical committee has had under consideration the application received from the committee of the Hobart District Nursing Association, requesting that in future the association might be granted the dressings, disinfectants, etc., required by the Government cases attended to by the district nurses. The committee gave the matter careful consideration, and regrets that, owing to the straitened financial position of the hospital, it cannot recommend that the request be complied with." It was also stated that his Excellency the Governor-in-Council has approved of a supplementary estimate of £602 8s 10d, being the amount required to balance the accounts of the Hobart General Hospital for the financial year ended June 30, 1905.

Infectious Diseases Hospital for Hobart.—At a meeting of the Hobart City Council held recently, the question of providing an infectious diseases hospital for Hobart and its suburbs came up for consideration. The Government had agreed to set aside the sum of £5000 for this purpose, conditional on the Hobart Corporation and the adjacent town boards providing a suitable site and arranging for the upkeep of such an isolation hospital. It was resolved that the authorities interested, in conjunction with the Corporation Health Officer, should be called together with a view to expediting the matter.

Royal Alexandra Hospital, Sydney.—At the monthly meeting of the board of management of the Royal Alexandra Hospital for Sick Children, held last month, it was reported that there had been 62 patients admitted during the month to the general hospital; to the diphtheria wards, 33; discharged from the general hospital, 57; from the diphtheria wards, 16; deaths in the general hospital, 5; in the diphtheria wards, 0; remaining in the general hospital, 49; and in the diphtheria wards, 3. That there had been 3154 attendances during July, 832 of these being new cases. The Camden Cottage report showed that 9 children had been admitted, 9 discharged, and that there were 14 then in the cottage. The hon. treasurer's report showed a debit balance of £441 13s 6d. A progress report was received from the central committee of the Ladies Auxiliary, of which the Lady Mayoress is president, showing that 23 branches had been formed in the various country towns and the suburbs of Sydney; that the hon. treasurer had received from these branches a sum of over £1000 as a first instalment. A deputation waited on the Chief Secretary, Mr. Hogue, for assistance from the Government towards the new building. Dr. Clubbe said the object of the deputation was to ask the Government to put a sum of money on the Estimates to help the hospital with the new buildings being erected at Camperdown. Some years ago the late Government, after a good deal of persuasion, granted a site at Paddington. That site was found to be unsuitable, and subsequently a site was selected at Camperdown. The See Government granted £5000 towards the purchase of the land. It did not complete the purchase. The Paddington site was handed back to the Government. That was all the help they had had so far from the Government. When they started to erect the new buildings they had £20,000 in hand. A great effort had been made amongst the public lately to get money for the hospital. The Lady Mayoress had started a fund, from which it was hoped to derive some £4000. The present assets were about £24,000. The estimated cost of the buildings, if opened with 120 beds, was £48,000, so that they were really £24,000 short. They felt that perhaps it would not be wise to attempt to open with 120 beds, although they were sadly needed; but 80 beds would be the smallest number they could possibly open with. Under the contract signed they were involved in an expenditure of £29,000. In order to open with 80 beds they would have to spend another £5000 at the very least. That meant an expenditure of £34,000, and then they would have no provision whatever for nurses' homes. If they were to open at all, the very smallest amount that they could possibly do with was £34,000, and that would not cover furniture. So that they wanted from £8000 to £10,000. The present buildings were quite unsuitable, and as a modern hospital for children were a standing disgrace to the city. Owing to the insufficient accommodation, many children who needed hospital treatment had to be turned away, and left in their parents' homes. A large percentage of the infants that were visited required hospital treatment, but it was impossible to give it to them. If they were unable to raise the money required, the buildings at present being erected would simply have to stand idle until assistance came along. The Chief Secretary said he was very anxious to assist and to do anything in his power to help the institution. He would make a recommendation in this case, and would do all he could.

Austin Hospital for Incurables, Melbourne.—At the last meeting of the Austin Hospital committee the medical superintendent reported that there were in hospital 138 patients; 2 patients had died, 1 had been discharged, and 14 had since been admitted. There were in residence 81 males and 68 females, leaving vacancies for 2 men and 1 woman in the consumptive wing, and for 2 women in the cancer ward. The vacant beds were filled by the admission of 5 of the most urgent cases waiting. A donation of £100 was received from the Felton bequests committee towards the cost of furnishing the Kronheimer wing, making the amount in hand for that purpose over £240. It was noted that the cost of furnishing the new building would amount to £600—equivalent to an expenditure of £10 for each of the 60 beds the wards were designed to contain. Dr. Moore and Messrs. T. Harlin and J. A. Levey were appointed to represent the institution at the meeting convened by the committee of the Women's Hospital to consider the representation of Hospital Sunday contributors.

Coast Hospital.—The annual report of Dr. Ashburton Thompson, Chief Medical Officer of the Government, states that the gross expenditure upon the Coast Hospital for the year 1904 was £20,997 11s 3d. This works out at an annual average cost of £67 3s 3¼d per bed, or 3s 1¾d less than the average cost during the previous year.

Launceston Hospital, Tasmania.—At the last meeting of the board of management of the General Hospital the finance committee reported the receipt of various sums towards the proposed operating theatre. The receipts and promises to date amounted to £150 8s. It was stated that the serious consideration of the board as to the continued upkeep of the Gibson Convalescent Home at Perth was needed, consequent upon the annual subscriptions having fallen off, and in some instances ceased, they being guaranteed for three years only. The receipts of the hospital for July amounted to £577 17s 10d, including £275 from Government.

The opening ceremony of a new wing to the Foundling Hospital and Infants' Home, Berry-street, East Melbourne, was performed by Lady Talbot, attended by Captain Buchanan, A.D.C., and Miss Talbot, in the presence of a large and influential gathering, on September 14th. Prior to handing the trowel to Lady Talbot, the Speaker of the Legislative Assembly said the institution was established about 30 years ago, but it had been found that the managers of the institution could not cope with the difficulty, for more infants were coming in than they could deal with; and although the results were excellent, they were in great difficulties for want of room, and it had been decided to make it a foundling hospital and infants' home. That was why they had asked Lady Talbot to lay the stone in commemoration of that change. The inscription is as follows:—"Foundling Hospital and Children's Home.—This stone was laid by Lady Talbot, wife of the Governor of Victoria, to commemorate the opening of the foundling wing. 14th September, 1905." Dr. J. Wood, one of the honorary physicians to the institution, drew attention to the fact that, thanks to the care of the superintendent, Mrs. Edwards, the cry all over the world that it was impossible to bring a child up on the bottle had been completely disproved. They had reared no fewer than 92 children in that way within the past few years. The children were kept there until they were about four years old, and were then boarded out into families, and were maintained by the committee, assisted by the parents. The new building is of brick, and consists of two stories, divided into a large ward measuring 57 feet by 25 feet, containing 32 cots on the top floor, and two day nurseries, each 26 feet by 25 feet, on the ground floor. The building is fitted with radiators and patent hygienic stoves, and appears to have been furnished with every modern requirement.

MEDICAL NOTES.

Charitable Donations and Bequests.—The late Mr. John Keep, of Sydney, who was a director of the Royal Prince Alfred Hospital and of the Carrington Hospital for Convalescents, has bequeathed £100 to the former and £50 to the latter institution. The following legacies have been left to charitable institutions by the late Mr. W. E. Sparke:—Charity Organisation Society of Sydney, £250; Institution for the Deaf and Dumb and the Blind, £250; Royal Alexandra Hospital for Children, Sydney, £500; Prince Alfred Hospital, £500; Sydney Hospital, £500. The late Mr. Robert Muir has bequeathed the following legacies to charitable institutions:—Sydney Hospital, £200; St. Vincent's Hospital, £200; Royal Prince Alfred Hospital, £200; Children's Hospital, Glebe, £50.

Dental Hygiene.—Dr. R. Fairfax Reading delivered a lecture last month to members of the Australasian Trained Nurses' Association on "The Importance of Dental Hygiene for Nurses and Patients." The lecturer said that the ordinary standard of oral cleanliness was to brush the teeth twice a day, and few people were aware of the danger which existed in a mouth which they generally considered clean. He referred to the importance both to the nurse and the patient of the mouth being surgically sweet, first by the removal of bad teeth, or septic cause, and then by proper mechanical cleanliness. Proper attention in this direction was essential to the nurses' health, as well as to success in her professional career. After describing the best artificial aids for mastication, and advocating a plate which could be kept absolutely clean, he recommended a stiff brush for natural teeth morning and evening, with paste or powder, precipitated chalk and glycerine being the basis of most of them. He described minutely the method of cleansing between the teeth, without which an antiseptic mouth wash, to be used afterwards, would be almost useless.

Hospital Saturday at Newcastle.—Hospital Saturday was held on September 2nd. The amount collected was considered very gratifying, and the more so in view of the fact that innumerable calls have recently been made on the purses of the charitable. The hospital's finances are very low, and the authorities have to beg hard to make both ends meet. Strenuous efforts have been made by the committee of management of the movement to raise more than the usual amount. The grand total reached £250, as against £238 last year.

Insanity in New Zealand.—On December 31st last there were 1801 males and 1237 females in the asylums of the colony, an increase of 79 over the previous year, when the increase was 111. The number of patients admitted during the year was 580, against 691 for the previous year. Re-admissions in 1903 numbered 202; in 1904, 105. The percentage of recoveries on the admissions was 45·34, as compared with 42·17 for the previous year. The Inspector-General urges the establishment of an after care association which could take charge of a patient until his self-control had been tested. The total insane to the population, inclusive of Maoris, was one in 296. The net cost of patients per head was £21 19s 11½d, a decrease of 1s 1½d as compared with last year.

The hospital and charitable aid expenditure in New Zealand for the year 1904 was £259,615, for a total population of 908,114. The Inspector-General urges that outdoor relief ought no longer to be subsidised by more than one-third, instead of 24s per £, and should be abolished by a date to be fixed. Large hospitals should be made to depend on direct taxes and local contributions, and smaller hospitals should be closed as means of communication made it possible to do so.

Prehistoric Australians.—Dr. Hermann Klaatsch, of the Heidelberg University, Germany, has found at Warrnambool, Victoria, slabs of stone bearing footprints of some great bird now extinct. The bird is supposed to have been larger than the emu. He firmly believes that a similar slab in the museum bears the footprints and impressions of portion of the body of a prehistoric man, and he urges the townspeople to carefully search for such specimens. He considers that the extensive sandstone formation under the town many thousands of years ago formed level, sandy beaches, which were the camping ground of the prehistoric races then existing. At that time Australia and Tasmania formed part of a great Antarctic continent, which extended up into the Indian Ocean, and connected Australia with Asia and Africa. The tides built layer upon layer of sand on the beach, covering the impressions made in each succeeding surface without destroying them. Then came a great subsidence, when Tasmania became separated from Australia and Australia from Asia and Africa. Then came the great volcanic upheaval, when Tower Hill was formed, and also other volcanoes in Victoria. Dr. Klaatsch disagrees with Professor Gregory's theory that man has only existed in Victoria from a comparatively recent period. Dr. Klaatsch has discovered numerous stone implements, human and animal bones, and other interesting objects in the course of his investigations along the coast.

"The Benevolent Asylum is a grossly unsafe building for weak and infirm people to be confined in," was the sweeping assertion made by Dr. Norris, the chairman of the Victorian Board of Health, at its meeting recently. The doctor went on to say that owing to the probable early removal of the asylum the board did not insist on expensive structural alterations being made, but only required the provision of inexpensive canvas chutes and fire breaks, but these the board of management of the institution had not provided. The delay, it seems, was due to the asylum authorities being under an extraordinary misapprehension as to what was required, but this, he said, had now been removed, and on his suggestion a motion was carried calling on the board of management of the asylum to make the alterations within a month. The asylum committee decided that the work required should be done.

Numerous breaches of the cemetery regulations have been committed which, according to Dr. Norris, the chairman of the Victorian Board of Health, the trustees of the St. Kilda Cemetery will have to justify or explain. It seems that after the cemetery was closed by Order in Council, which stated that no burials were to take place after 1900, land was sold and other irregularities committed. A recent investigation had revealed the fact that legal documents had been defaced, and that there were in existence in the archives of the cemetery no fewer than 885 burial rights in blank and ready for use, all signed by the trustees. These burial rights the Board of Health will not allow to be issued without its approval, and the trustees are also to be asked to have the whole matter in connection with the irregularities cleared up without delay.

PERSONAL ITEMS.

Sir Philip Sydney Jones, M.D., was entertained at a banquet at Burwood, N.S.W., on August 19th. Many citizens of Sydney were present, and there was also a large local representation. Sir Philip's distinction in the medical profession was referred to by several speakers. He conceded in his reply that he had evidently been destined for that profession, as in his school days he was dubbed "The Doctor."

Dr. Harry Brookes Allen, Professor of Pathology and Anatomy in the University of Melbourne, has been elected President of the next Australasian Medical Congress to be held in Melbourne in 1908. Professor Allen has held the Chair of Anatomy and Pathology in the University of Melbourne since 1882. He is also a Dean of the Faculty of Medicine. He was educated at the Melbourne University, where he took his M.B. degree in 1876, and his M.D. in 1878. He was president of the Commission on the sanitary state of Melbourne which sat in 1889, and in the following year he visited Europe to inquire into the management of the various medical schools in the United Kingdom and on the Continent. At his instance the General Medical Council of England recognised the medical degrees of Melbourne, and he himself was the first M.D. of the University in the sister capital to be registered in accordance with the new arrangement.

Dr. Mason, Chief Health Officer of New Zealand, has been granted six months' leave of absence on account of ill-health.

Dr. Baxter-Tyrie has severed his connection with the Department of Public Health, Queensland, to go into private practice at Boonah, Q.

Dr. Bedford has returned to Auckland, N.Z., after an extensive tour in Europe and America, and has resumed practice.

Dr. Charles North has returned to Dunedin, N.Z., after an absence of seven years, the last six of which have been spent in medical mission work in India and Chandpur, East Bengal. Dr. North is now taking his customary holiday before sailing for India next October.

Dr. Ogston, district health officer, has been on a visit to Invercargill, N.Z., conferring with the local hospital authorities in the matter of supplying provision for consumptives, as an adjunct to the hospital, and also in the matter of the establishment of a hospital for infectious diseases.

Dr. McIlroy, who was recently in practice at Ophir, has taken over Dr. Todd's practice at Lumsden, N.Z.

Dr. Savage has left Oatlands, Tasmania, and has been succeeded by Dr. Jones, late of Swansea, Tasmania.

Dr. Edward Scott Humphry has been appointed a Justice of the Peace for the District of Yilgarn, W.A.

Dr. D. D. Cade has been appointed a member of the Licensing Court for the District of Balranald, N.S.W.

Dr. S. T. Knaggs, who has been in China and Japan during the last few months, returned to Sydney on September 5th. Dr. Knaggs has resumed practice at Lyons' Terrace, Liverpool-street, Sydney.

Dr. Borthwick has been granted two months' leave of absence by the Zeehan (Tasmania) Board of Health.

Dr. J. T. Mitchell, of Ballarat, Victoria, who was taken ill soon after he arrived in Adelaide to attend the Medical Congress, is now convalescent.

Dr. Tresidder, Government Medical Officer, who has practised in Dubbo, N.S.W., for 15 years, has sold his practice to Dr. W. Daish, from Ararat, Victoria. He was presented with a service of plate and an illuminated address at the Town Hall.

Dr. G. F. Baur, late of Medlow Bath, N.S.W., has commenced practice at Macquarie Chambers, Sydney.

Dr. W. B. Dight has disposed of his practice at Riverstone, N.S.W., to Dr. Blue, and has removed to Campbelltown.

Dr. Ellis, Labour member for Coolgardie in the Western Australian Assembly, is reported to be seriously ill in Perth.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Burkitt, Edmund Henry, M.B., to be Acting Visiting Surgeon to the Gaol at Dubbo, *vice* Dr. Tresidder, on leave.

Daish, Wm., M.B., Ch.B., to be Hon. Medical Officer of the Dubbo Hospital.

Davidson, Andrew, Medical Superintendent, Hospital for the Insane, Callan Park, to be Port Health Officer at Newcastle during the absence on leave of R. U. Russell.

Dight, Wilfred Billingsley, M.B., M.Ch. (Syd.), to be Government Medical Officer and Vaccinator at Campbelltown, *vice* John S. Wilson, resigned.

Murray, George Lathrop, M.B., M.Ch. (Syd.), to be Government Medical Officer and Vaccinator at Portland.

Wright, Thomas Nisbet, L.L.M.R.C.P., L.R.C.S. (Irel.), to be Government Medical Officer and Vaccinator at Gloucester.

Wilson, Tasman John George, M.B., Ch.B. (Edin.), to be Government Medical Officer and Vaccinator at Mungindi, *vice* Dr. F. S. W. Zlotkowski, resigned.

Woolnough, Robert Edmund, to be Senior Medical Officer at the Coast Hospital.

Wallace, Donald, to be second Resident Medical Officer (on probation) at the Coast Hospital, *vice* W. A. R. Sharp, resigned.

VICTORIA.

Barker, Walter Herbert, to be Medical Superintendent, Hospital for the Insane, Kew, for 12 months on trial, in place of J. V. McCreery, retired.

Barnard, Charles Edward, M.D., to be Acting Officer of Health for the Shire of Creswick, *vice* Thomas Stang, L.R.C.P., resigned.

Godfrey, George Clarence, to be Medical Superintendent, Hospital for the Insane, Ararat, for 12 months on trial, *vice* W. H. Barker, transferred.

Mullen, William Lowell, to be Medical Superintendent, Hospital for the Insane, Yarra Bend, for 12 months on trial, *vice* of W. L. Watkins, retired.

Mackeddie, John Fullarton, M.D., to be Pathologist to the Hospitals for Insane within 20 miles of the General Post Office at Melbourne.

Owen, Arthur Geoffrey, M.B., to be Officer of Health, Shire of Hampden, West Riding, *vice* Norman Dolling, M.R.C.S.

O'Brien, John Aloysius, M.B., etc., to be Inspector of Institutions under the Inebriates Act 1904.

Woodside, Robert Neville, M.B., to be Officer of Health, Shire of Gordon, eastern portion, *vice* George Bill, M.B.

The gentlemen named hereunder to be Public Vaccinators for the districts respectively mentioned, viz. :—

Barrett, William Amherst Henry, L.R.C.P., Northern, *vice* M. M. Lyons, M.B., resigned.

Inglis, Edgar Montgomery, M.B.,, Metropolitan, *vice* H. O. Cowen, M.B., resigned.

Kilpatrick, William, M.B., North-Eastern, *vice* C. N. Macquarie, L.R.C.P.

Lock, John Ezekiel, L.S.A., North-Eastern.

Molloy, Charles Henry, M.D., South-Eastern.

Morton, William Alexander, M.B., South-Western.

Owen, Arthur Geoffrey, M.B., South-Western, *vice* N. Dowling, M.R.C.S., resigned.

Stang, Thomas, L.R.C.P., South-Western, *vice* S. W. Pitcher, L.R.C.P., resigned.

Woodside, Robert Neville, M.B., North-Western, *vice* George Pill, M.B., resigned.

The undermentioned gentlemen to be Officers of Health to the Municipal Councils concerned, viz. :—

Gibbs, Martin Arnold, L.R.C.P., Shire of Kerang, *vice* Samuel Hubert Seccombe, M.R.C.S.

Griffith, Christopher Arthur, M.R.C.S., town of Caulfield, for the whole town.

Grimwade, Alfred Sheppard, M.R.C.S., Borough of Newtown and Chilwell, *vice* William Amherst Henry Barrett, L.R.C.P., resigned.

Kilpatrick, William, M.B., Shire of Omeo, *vice* Charles Nicol Macquarie, L.R.C.P.

Pern, Horace, M.R.C.S., Shire of Alberton, *vice* William Charles Crawford Muir, M.B., resigned.

WEST AUSTRALIA.

Dowling, F. J., to be Acting District Medical Officer, Bridgetown; Acting Public Vaccinator for the districts of Bridgetown, during the absence on leave of Dr. Dean.

Holmes, John, to the Honorary Medical Staff of the Fremantle Public Hospital, during the absence on leave of Owen Paget.

Macarthur, J. H., to be Public Vaccinator at Broad Arrow.

Macmillan, John G., to be Officer of Health, Kalgoorlie.

NEW ZEALAND.

Crosby, Arthur Henry Pascal, M.R.C.S. (Eng.), L.R.C.P. (Lond.), to be Medical Superintendent of the Lunatic Asylum at Wellington.

Gribben, St. Leger Hugh, M.D. (Edin.), to be Assistant Medical Officer of the Lunatic Asylum at Christchurch.

Thomson, J. B., M.B., Ch.M., (Edin.), to be House Surgeon to the Arrow District Hospital.

The undermentioned persons to be Public Vaccinators for the districts set opposite their names respectively, viz. :—

Bauchop, William Forsaith, L.R.C.P., L.R.C.S. (Edin.), 1891 Blacks, *vice* A. J. McIlroy, resigned.

Falconer, Alexander Robert, M.B., Ch.B. (N.Z.), for the district of Blueskin, *vice* Dr. Gault.

Rogers, Reginald James, M.R.C.S. (Eng.), 1897, L.R.C.P. (Lond.), 1897, Taihape, *vice* G. H. H. Monk.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as legally qualified medical practitioners in their respective States:—

VICTORIA.

Caddy, Arnold, L.R.C.P. (Lond.), 1887; M.R.C.S., 1887; F., 1891 (Eng.).
Shaw, Patrick, L.R.C.P. *et* R.C.S. (Edin.), 1904.
Smithwick, Gerald William, L.R.C.P. *et* R.C.S. (Edin.), 1901.
Wilkinson, Arthur Norris, M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1895.

Additional Qualification.

Sutton, Harvey, Ch.B. (Melb.), 1903.

WEST AUSTRALIA.

Jamieson, Douglas Dunbar, M.B., B.S. (Melb.), 1905.
Nutting, Philip Henry, L.S.A. (Lond.), 1884; L.R.C.P. (Lond.), 1885; M.R.C.S. (Eng.), 1885.

TASMANIA.

Manners, Arthur, M.R.C.S. (Eng.), 1879; L.R.C.P. (Edin.), 1881.

QUEENSLAND.

Buchanan, Joseph David, M.B., M.Ch. (Syd.), 1905.
Culpin, Ernest, M.B. (Syd.), 1905.
Deck, John Feild, M.D. (S. And.), 1862; L.R.C.P. (Lond.), 1862; M.R.C.S. (Eng.), 1862.
Foley, John Hamilton, L.R.C.S. (Irel.), 1883; L.K.Q.C.P. (Irel.), 1885.
Hein, Johannes Carl, M.D., 1899, Königsberg, Prussia, Staats Examen, 1899.
Hallen, Arthur Herbert, A.M.S., M.B., M.S. 1889, M.D. 1892 (Edin.).
Moni, Riccardo, M.D. (Parma, Italy), 1902.
Oborn, Henry William, L.S.A. (Lond.), 1892.
Perkins, Thomas Johnson, L.R.C.P. *et* S. (Edin.), 1895; L.F.P.S. (Glasg.), 1895.
Pitt, Herbert Reginald, M.B., B.S. (Melb.), 1902.
Wilson, Tasman John George, M.B., B.S. (Edin.), 1900.
Walsh, Gerald, M.B. 1900, B.S. 1901 (Melb.).

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

HEALY.—July 29th, at Yackandandah, Victoria, the wife of J. J. S. Healy, L.R.C.P. and S.E., etc.—a daughter.

HOCKEN—August 19th, 1905, at West Wallsend, Newcastle, N.S.W., the wife af Dr. J. Preston Hocken—a daughter.

JAMIESON.—At Bathurst, N.S.W., the wife of Sydney Jamieson, M.B., C.M. (Edin.), Lyons' Terrace, Sydney, of a daughter.

REISSMANN—September 2nd, at College Town, South Australia, the wife of Dr. Reissmann—a daughter.

MARRIAGES.

DICKINSON—HEARN.—August 31st, at Stainburn, Essendon, George Dixon Dickinson, M.B. and C.M. (Edin.), M.R.C.S.E., of Moonee Ponds, second son of the late George Dickinson, Darlington, England, to Mary Helen, widow of the late James Hearn, Essendon, Victoria.

LAMB—STEWART.—August 26th, at Aldgate, S.A. Arthur Gordon, third son of the late Alfred Lamb, of Sydney, to Alice, widow of the late Robert Stewart, M.D., of Rowan, Hindmarsh, South Australia.

SAMPSON—CLUNE.—On August 2nd, at the Pro-Cathedral, Kensington, London, W. B. Sampson, M.D., eldest son of Dr. Sampson, Scariff, Ireland, to Madeline, only child of the late M. J. Clune, Hyde Park, Sydney.

STACY—JOHNSON.—August 2nd, 1905, at St. James', Turramurra, Harold Skipton, fifth surviving son of the late H. P. Stacy, of Singleton, N.S.W., to Nellie, youngest daughter of the late Richard Johnson and Mrs. R. Johnson, late of Snails Bay, Balmain, Sydney.

STEVENS—THOMAS.—May 3rd, at Townsville, Queensland, William Woodburn Stevens, M.B., Ch.M., of Charters Towers, son of John Stevens, Esq., J.P., of Beechworth, Victoria, to Ilma Myra, daughter of David Arthur Thomas, Esq., J.P., of Randwick, N.S.W.

DEATHS.

BICKLE.—August 28th, at North Terrace, Adelaide, S.A., Jean, the beloved wife of Dr. L. W. Bickle, and daughter of the late Robert Brown Fraser, of Ridge Park, Glen Osmond, aged 36.

CLARK.—September 9th, at Carlisle-street, St. Kilda, Victoria, Eliza, relict of the late Dr. Clark, of Brighton.

PLUMMER.—August 13th, at Grafton Hospital, N.S.W., Walter George Plummer, L.K.Q.C.P.I., L.R.C.S.I., of Brushgrove, Clarence River, N.S.W., aged 60 years.

RUTLEDGE.—September 19th, at his late residence, the Rectory, Sutton Forest, N.S.W., Rev. Dr. D. D. Rutledge, M.A., M.B., Ch.M., aged 53.

BOOKS RECEIVED.

THE following volumes have been received from Messrs. D. Appleton & Co., of New York, per Messrs. Heyne & Co., of 49 Elizabeth-street, Mebourne:—

1. Appleton's Medical Dictionary. 1904. Price, £2 10s net.
2. Normal Histology and Microscopical Anatomy. By J. S. Ferguson, M.Sc., M.D. With 462 illustrations, many in colour. 1905. Price, 18s net.
3. A Treatise on Diseases of the Anus, Rectum and Pelvic Colon. By Jas. P. Tuttle, M.D. With 8 coloured plates and 338 illustrations. 2nd edition. 1905. Price, £1 7s 6d net.
4. Diseases of the Heart and Arterial System. Designed to be a practical presentation of the subject for the use of students and practitioners of medicine. By Robt. H. Babcock, M.D., With 3 coloured and 139 illustrations. 2nd edition. 1905. Price, £1 7s 6d. net.
5. Operative Surgery. By J. D. Bryant, M.D. Vol. i. and ii., containing upwards of 1800 illustrations, many of which are in colours. 1905. Price, £2 5s net.
6. Chemical and Microscopical Diagnosis. By F. C. Wood, M.D. With 188 illustrations and 9 coloured plates. 1905. Price, £1 3s net.

Dispensing Made Easy. By Wm. G. Sutherland, M.B. 2nd edition. Bristol: John Wright & Co. 1905. Price, 3s 6d net.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. E. Champion, Ballarat; Dr. W. J. S. McKay, Sydney; Dr. Affleck Scott, Ballarat; Dr. H. C. McDouall, Sydney; Dr. A. W. Finch Noyes, Melbourne; Dr. J. E. Ramsay, Perth, W.A.; Messrs. Burroughs, Wellcome & Co., London; Dr. Plomley, Fremantle, W.A.; Dr. A. B. Brockway, Brisbane; Professor E. C. Stirling, Mount Lofty, S.A.; Dr. Richard Jones, Eaglehawk, Victoria; Mr. G. T. Taylor, Hobart; Dr. David Wield, Brisbane; Dr. Litchfield, Sydney; Dr. T. A. Wilson, Creswick, Victoria; Dr. Geo. Skinner, Launceston, Tasmania; Dr. E. H. Binney, Sydney; Dr. C. P. B. Clubbe, Sydney; Dr. A. S. Vallack, Bowral; Dr. J. A. Dick, Randwick; Mr. C. A. J. Woodstock, Brisbane; Dr. H. Critchley Hinder, Sydney; Dr. C. Reissmann, Adelaide; the Registrar, Royal College of Physicians, London; Mr. G. Arnold, Sydney; Messrs. Fassett & Johnson, Sydney; the Secretary, Royal Prince Alfred Hospital, Sydney; Dr. H. Lowrie, St. Kilda, Victoria; Messrs. Fredk. Stearns & Co., Detroit, U.S.A.; Dr. Guthrie Rankin, London; Dr. J. R. Purdy, New Zealand; Dr. John Harris, Newcastle.

ORAL SEPSIS.—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.
A Gum pastille containing the active constituents of well-known Antiseptics, Eucalyptus Globulus, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic, prophylactic, reducing sensibility of mucous membrane. W. A. DIXON, F.I.C., F.C.S., Public Analyst of Sydney, after a comparative test of "Eumenthol Jujubes" and beech-wood Creasote, reports that there is little difference in their bactericidal action. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creasote." G. HUDSON, Manufacturing Chemist, Ipswich, Queensland. London Agent: W. F. PASMORE, Chemist, 320 Regent-street, W.—[ADVT.]

AUSTRALASIAN MEDICAL GAZETTE.

MEDICAL ETHICS.

Presidential Address delivered in the Section of State Medicine and Medical Ethics, Australasian Medical Congress, Adelaide, September, 1905.

By G. A. Syme, M.S., F.R.C.S. (Eng.), Melbourne.

ALLOW me to begin this address with a grateful acknowledgment of the honour conferred by the executive of the Congress in asking me to preside over this section. I appreciate the compliment very highly, and the more because I feel it to be undeserved. I accepted the position, however, very reluctantly, and with much misgiving. It seemed the irony of fate to preside over a section the utility of which I much doubted. The meeting together of our members, from widely separated and different parts of the Commonwealth and New Zealand, certainly affords opportunity for comparison of differences in methods in State Medicine, and, as the first President of the Congress observed in his address in this city 18 years ago, for "making common property what suggestions relating to medical ethics or legal status arise out of our colonial life." But will the discussion of such matters *coram populo* promote, what I venture to hold ought to be the main object of these Congresses, the advancement of our profession as a science, not only among ourselves, but in the eyes of the public? We shall see.

At the first Congress a section of State Medicine was instituted. Dr. Whittell, its president, said very truly in his address "that the term was an indefinite phrase, meaningless in itself, but which from usage is understood to express the action and duty of the State in relation to the physical welfare of its subjects." He did not say what he meant by State, but confined his attention to the duty of the State, evidently meaning the Government, in providing for the removal and prevention of disease. The term "Public Health" is now more generally used when speaking of this particular aspect of the subject, and in succeeding Congresses the title of the section was changed to "Public Health, including State Medicine," and sometimes other subjects, as psychology and forensic medicine. Now we have two separate sections, one of "Public Health, &c.," and our own, called "State Medicine and Medical Ethics." I confess I have been somewhat puzzled to know what "State Medicine," as distinct from "Public Health," is supposed exactly to include. I propose to regard it as covering the relations of the State, *i.e.*, the body politic, both generally as the community, and particularly as the Government, to the medical profession, and its duty in caring for disease.

Professor Metchnikoff, in that intensely interesting book "The Constitution of Man," has pointed out, more clearly and recently than others, that most of man's troubles and difficulties arise from maladjustment to changed environment, arising in the course of evolution. The medical profession is no exception. In its relations with the State, many such mal-adjustments exist. Many, probably the majority, of them arise from popular ignorance regarding the evolution of medicine as a science, popular misconceptions as to its true aims, and inability to appreciate both its immense potentialities and the nature of its limitations. In some instances, these mal-adjustments have become so great as to produce almost a war between the profession and certain sections of the community. We constantly read in our journals, *e.g.*, of the "Battle of the Clubs." I venture to think that the profession, instead of fighting certain sections in the State, and especially fighting them with their own weapons, should try to educate them; endeavour to make every member of the community realise that medicine is not a trade, whose business is the selling of charms and specifics, but a progressive science. When its true aims and aspirations are thoroughly "understanded of the people," the profession will be appraised at its due worth, and most of the grievances of its members, I believe, will be set right.

Educated people generally do appreciate us. R. L. Stevenson said of the physician: "He is the flower (such as it is) of our civilisation; and when that stage of man is done with, and only remembered to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practise an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and, what is more important, Herculean cheerfulness and courage."

When such an appraisement becomes universal on the part of the public, and is universally deserved by the profession, there will not be many mal-adjustments to rectify. In the meantime they exist, and afford matter for discussion in this section. What I fear is, that the trade aspects of the questions brought before us may occupy too much attention. I hope that our discussions may be of educational value, to the public as well as to ourselves.

Let us now look a little more in detail at some of these relations between the State and the Medical Profession.

In Great Britain, the relationship starts at the very commencement of a medical student's career. The State, as Government, through the powers entrusted to the General Medical Council, determines the course of study he is to pursue. The Government does not, however, assist very materially in directly providing for his medical education. In Australia, the position is reversed. The Governments of New South Wales, Victoria, and South Australia contribute very largely to the support of the University Medical Schools, but do not interfere with the course of study. The Government does not, in any State, come into direct relation with the profession until the possessor of a medical diploma wishes to be registered as legally qualified to practise. The requirements for registration vary greatly in the different States of the Commonwealth. It is highly desirable that they should be made uniform, and that the portals to the profession should be the same in every part of Australia. Something has been done in this direction in recent years by the amendments of the Medical Acts passed in New South Wales and South Australia. It is surely an anomaly that while Australians, to obtain a qualification in their own country, must pass through a five years' course at their own Universities, in Victoria, West Australia, and Queensland anyone who has passed through a regular course of medical study of not less than three years in a foreign school of medicine, and received a diploma, can be registered. In South Australia the course must be four years; in New South Wales only must it be five years. The Tasmanian Act, though passed in 1842, is very effective for preventing unqualified practice, and is the only Act that is. It expressly says: "No person shall practise as physician, surgeon, or apothecary, or prescribe or do any surgical act, unless certificated by the Board." Another serious defect in the Victorian Act is that, once a person's name is on the register, it cannot be removed, although the body that gave him the diploma under which he registered may have taken it away for misconduct. The State Premiers, at their next conference, might well consider the advisability of making the various Medical Acts uniform. In any new legislation it should be provided that qualifications that are not registrable in Great Britain should not be recognised in Australia. It has been suggested that medical registration should be a function of the Commonwealth Government, with a Federal Medical Council for Australia, similar to the General Medical Council of Great Britain. Owing to the great distances between the different centres of the Commonwealth, such an arrangement would probably prove expensive and inconvenient.

Whether the requirements for registration as medical practitioners should be materially altered is a matter for grave consideration. The fulfilment of those now in force in most countries ought to be a guarantee to the public of theoretical knowledge, but is not something more necessary?—some more satisfactory guarantee of competence for actual practice? In that interesting, if morbid and exaggerated book, "The Confessions of a Physician," the Russian author describes very graphically his despair on first entering into actual practice, and the pitfalls into which his "abstract bookish wisdom" led him, owing to want of practical experience. So great was his mental distress that he threw up his practice and returned to St. Petersburg for further practical work, quoting Bilroth: "That only a doctor without a drop of conscience can permit himself, without more ado, to make use of the rights which his diploma gives him."

Some years ago the General Medical Council of Great Britain recognised that further requirements were necessary. The Council imposed a fifth year of study, recommended to the licensing bodies that it should be devoted entirely to clinical work, and provided that six months of it *may* be passed as a pupil to a registered practitioner. Is this enough? Judging from my own experience, I should say that it is not. I was foolish enough, when just graduated, to take a position as *locum tenens* for a practitioner who had been suddenly taken ill. He had a very large general practice, with numerous lodges. My experiences were not so tragic as those of the Russian physician referred to, but they were extremely disheartening. I was quite satisfied that, in spite of my legal status, I was *not* qualified to practice, nor did I attempt to do so till I had done six years additional work, holding various subordinate hospital appointments, in which I could acquire practical knowledge, technical skill, and a feeling of confidence. It seems to me a question for very serious consideration whether practitioners should be registered unless they can show evidence of practical work, either as resident medical officer, or pupil, at a hospital, or as assistant to a medical man in practice, subsequent to the taking of a diploma. The difficulty is to obtain such positions, as the Russian writer of the "Confessions" found to his bitter sorrow. Much could be done if every hospital in Australia appointed resident medical officers annually, and reserved the positions for recent graduates of our own Universities. At the metropolitan hospitals, also, provision might be made for resident senior pupils, as at the Johns Hopkins Hospital.

Medical Acts all the world over have been passed, not in the interests of the medical profession, but for the purpose of protecting the public, and enabling them to distinguish between those who are regarded by the State as properly qualified and those who are not. A considerable number of medical practitioners think that legislative action should be taken for the repression of unqualified practice altogether. Most of those who clamour for the legal restriction of quacks do so openly, in the interests of the profession as much as in the interests of the public. I venture to take a different view. Personally I do not believe that quackery does the slightest harm to the medical profession from a pecuniary point of view. But that is not the important question. What is requisite is that the public should be better informed on these matters, and more will be done by educating the people than by legal enactment. People must be made to realise both the limitations and possibilities of treatment, and must get rid of their antiquated and superstitious notions of the action of drugs, too many of which, I regret to say, are too often supported by some of our own profession. Much could be done by making public the real composition of quack preparations, and here legislation can be of service. The mysterious always appeals to the ignorant. Even the cultured man can be attracted by artistic mysticism, as evidenced by the vogue of Maeterlinck, the so-called Shakespeare of Belgium. Take away the cloak of secrecy from quack medicines; let it be known that so and so's "wizard oil" is only turpentine, camphor, and ammonia; that somebody else's "soothing syrup" is composed of morphia, with essence of anise and balsam of tolu, and the occupation of their manufacturers would be, like Othello's, gone. Hence the angry commercial protest against recent legislation in New Zealand on the subject of patent and proprietary medicines. The New Zealand Parliament passed an Act under which regulations were framed making it compulsory that the formulæ of all patent and proprietary medicines should be printed on the bottle, and that if any poison were contained in the preparation it must be labelled accordingly. The manufacturers of patent medicines and their agents raised powerful protests, and brought such influence to bear that the regulations were modified to the extent that the formula, instead of being placed on the bottle, was to be lodged with the Health Department. The manufacturers still objected, and, as no further alterations in the regulations could be obtained, they decided not to send their medicines to New Zealand. Evidently they realise very clearly that, once the real nature and commercial value of their preparations became publicly known, they would have no demand at the extravagant prices at which they had hitherto been sold.

Having been registered, the legally qualified medical practitioner comes into relation with State authority in various ways. He is bound to attend a summons from a coroner to attend and give evidence at inquests, and to make post-mortem examinations. A coroner is invested by the State with very plenary powers, and the discretion with which he exercises them may sometimes be called in question, especially by the medical profession. It has been much debated, *e.g.*, whether he should instruct the nearest practitioner, or a pathologist, with special experience, to make post-mortem examinations. As a general rule, I think it is unquestionably best, both in the interests of the public and of the profession, that such examinations should be made by skilled pathologists. The coroner, however, should be very careful that, consistently with the safety of the public, the reputation and interests of general practitioners giving evidence or connected with the case are protected. The main object of the inquiry is to ascertain the mode of death, and for this the medical evidence is generally all-important. If the coroner, by his attitude to medical witnesses, practically closes their mouths, as happened recently in Melbourne, he may be unable to ascertain the exact cause and mode of death.

The Coroner's Acts in Australia have been copied from the English Act, without taking account of altered conditions. Thus, if the practitioner reside more than 10 miles from the place where the inquest is held, he can only be paid 1s a mile for every mile of such extra distance. In the scattered districts in the interior of Australia this arrangement, probably fairly equitable in England, is very unfair. Cases have been brought under the notice of the Medical Defence Association of Victoria where men have had to travel long distances, involving absence from practice of two days and nights, with attendant expenses, for which the payment authorised by the Act was very inadequate. Even in England, complaint is made as to the inadequacy of fees to medical witnesses, and some time ago a joint deputation from the British Medical Association and Police Surgeons' Association memorialised the Home Secretary, asking that the fees for medical witnesses should be raised. The application was not granted. In almost all cases where the Government demands service from medical practitioners it pays them very poorly. The fees for vaccination and notification of infectious disease are ridiculously small. In Victoria, the post of Government Vaccinator in country districts entails a good deal of badly paid work, inasmuch as the vaccinator has to arrange beforehand to visit certain distant townships on a fixed day. He then probably has only a very few cases to vaccinate at the ordinary fee, for which he has had to sacrifice perhaps a whole day's remunerative work. As it is not compulsory for men to take these appointments, a little combination among medical practitioners in a district would probably compel the Government to pay more adequately in special cases.

Let us next consider the duties and responsibilities of the State in caring for disease. Here we find the greatest diversity of procedure, not only in Australia, but all over the world. In all the States of the Commonwealth, the Government contributes largely to the support of public hospitals and often provides some hospitals entirely. The amount contributed by the charitable public, and the degree to which the Government can interfere in the management, vary, not only in each State, but in each hospital. Here, in South Australia, I understand, the Government practically maintains all the hospitals, and, if it chooses, can exercise control over the management, as notoriously exemplified some years ago in the appointment of Drs. Leith Napier and Ramsay Smith to the Adelaide Hospital. In New South Wales, the Government has contributed very largely to both the building and maintenance of hospitals, and public subscriptions have not been at all proportionate. Last year, *e.g.*, in Sydney, the Royal Prince Alfred, Sydney, and Children's Hospitals cost £49,236 for maintenance, towards which the Government contributed £31,781, and the public subscribed £9282. In addition, the Coast Hospital, entirely supported by Government, cost £20,130. It is probable, however, that the Government grant to hospitals in New South Wales will be much reduced in future. In Victoria, Government and public contribute about equally. The management is practically free from Government control.

When Prof. Senn, of Chicago, was visiting us a little time ago he said to me: "You have far too many hospitals and charitable institutions in Australia in proportion to your population." His observation was correct. According to Mr. Bruck there was one hospital to every 12,299 people in Australia in 1899. Many of these institutions overlap in their work, and money is wasted in expenses of management and collection of subscriptions. Population is unsettled and shifting, and hospitals established in country towns, especially near goldfields, when they were thriving, are still maintained, though the population has left, and the hospitals are not really necessary. To quote Mr. Bruck again, the total number of beds available was 11,280, but the average number of in-patients a day was only 7809. It is evident that some central board or authority is required in each State to control all the hospitals and co-ordinate their functions. On this central board, and also on the boards of management of the individual hospitals, the medical profession should be represented. The executive officer of the central board also should preferably be a medical man.

In providing for the care of disease, it seems to me that it is the duty of the State, using the word in its wildest sense, to furnish free accommodation and treatment for the destitute sick, but for no others. It is not necessary, however, to provide palatial buildings, luxurious comforts, and the attendance in an honorary capacity of the most eminent men in the profession. To a large extent it is the very excellence of the public hospitals that causes them to be abused.

If we glance " into the dark backward and abysm of time," we see that the present system of State care for the destitute sick has not always existed. In pre-Christian Rome the sick poor were attended by the public medical officers, who were appointed for every district in the city. They were well paid, and also enjoyed many immunities. In ancient Arabia and other Mohammedan countries, hospitals, with paid physicians, were established by various rulers. With the advent of Christianity, the care of the sick became a religious duty, and hospitals became religious institutions, attached to monasteries, or founded by priests. St. Bartholomew's, the oldest hospital in England, was founded by Rahere, first Prior of the convent of Augustinian canons, and in charge of a master, brothers, and sisters. St. Thomas' was founded by the canons of St. Mary Ovaries, and held by the Prior of Bermondsey. The monks and priests were the first physicians at these hospitals, and naturally gave their medical services gratuitously. It might be imagined that out of this custom grew the practice of honorary medical service, when physicians and surgeons came to be appointed to these hospitals. But it appears it was not so. The first physicians and surgeons at both St. Bartholomew's and St. Thomas' were paid. The immortal Harvey was a paid physician at St. Bartholomew's. So late as 1738, a writer, describing St. Thomas', says that the physicians and surgeons had salaries " as well as perquisites considerably better than the salary."

When and how these positions became honorary, I have not been able to ascertain. St. George's Hospital, founded in 1733, was the first in England to be established and supported entirely by voluntary subscriptions, and its first staff was elected by a meeting of the subscribers. It consisted of six physicians and three surgeons, all of whom " had declared their willingness to serve without fee or reward." They were, however, to be " permitted to take pupils," which possibly explains the willingness to serve without payment. The need of clinical teaching in the training of medical men became recognised very gradually, being first properly instituted in Leyden in the 17th century. For some time before this, certainly in 1561, the physicians and surgeons at the great London Hospitals, St. Bartholomew's, St. Thomas', and Guy's, took pupils or apprentices, who paid large fees, and were instructed at the hospitals. The position of physician and surgeon at these hospitals thus became very valuable and lucrative, both directly and indirectly, and was much sought after. The profession is apt to take credit for the large amount of gratuitous work done by its members, and rightly. But, so far as large clinical hospitals are concerned, there is a good deal of cant about the noble generosity of the honorary staff in giving its highly skilled services to the suffering poor gratuitously. To men who desire to become and remain leaders of the profession, positions on the honorary staff of a clinical hospital are almost indispensable, and are accordingly keenly competed for and much coveted.

Unfortunately, the custom of honorary service has spread from large clinical to nearly all hospitals, and the amount of gratuitous work done by the profession in British communities is very great. In my opinion it should be very much restricted. At clinical hospitals it is necessary to have a staff of eminent men as teachers, who should be adequately paid for teaching. All the beds in such hospitals should be used solely by destitute patients, who, by providing clinical material, give all they can. In all other hospitals the medical staff should be paid. Burdett, in his great work on hospitals, says : " We believe, as the result of prolonged investigation, an intimate knowledge of the facts, and great practical experience, that if the voluntary hospitals were to determine that every medical officer, both resident and non-resident, should henceforth be paid for his services, the cost per bed at every institution which thus asserted its independence would be considerably reduced. The medical profession has rendered a great deal too much eleemosynary service in the past."

The ideal arrangement, to my mind, is such as obtains at the Johns Hopkins Hospital, Baltimore. There the endowment is sufficient to provide handsome salaries for all the staff, who are also teachers in the Johns Hopkins University. In no hospital in the world is better work done. Besides hospitals for the really destitute, paying hospitals are required for the poorer middle class, who cannot afford ordinary private hospital charges, together with the fees of leading members of the profession. A great deal might be done by the friendly societies, as I suggested years ago in the leading columns of the *Australian Medical Journal*. They could establish hospitals for their members, where they would be attended by their own lodge surgeons. When required, the services of a paid consulting staff should be available, just as now lodge members obtain the services of specialists. This consulting staff might be composed of young men, not yet in the height of their fame, perhaps holding junior positions on the staff of a clinical hospital.

Most American hospitals have paying wards. When a hospital like the Johns Hopkins is founded and maintained entirely by private benevolence, and when its staff is paid, I see no objection to its having paying wards. Nor can there be much objection, under other conditions, if the paying patients are permitted to select their own medical attendants, whether on the staff of the hospital or not. But to have paying wards attached to a public hospital subsidised by Government, and restrict the paying patients to the attendance of the staff, is very unfair alike to the patients, the outside profession, and those who keep private hospitals. I have had personal experience of the difficult situations such a condition creates as a member of the staff of the St. Vincent's Hospital, Melbourne, when it used to take paying patients. I strongly opposed the practice, which, I am glad to say, was given up.

While on this subject I would like to say a few words on a rather delicate question, viz., whether private hospitals ought to be conducted by medical men. I hold they ought not. It seems to me that the more all members of the profession keep to the "practising of an art," and away from "the driving of a trade," the better. Conducting a private hospital is purely a trade. Plenty of capable non-professional people are willing to carry it on properly, and to them it should be left. It is a trade which involves its driver in many petty annoyances and worries, which must distract a professional man and interfere with his whole-hearted attention to his proper work, which is sufficiently exacting and anxious as it is. The more the medical profession presents its commercial side to the public, the more it loses in dignity and esteem, and the more difficult is it to induce the public to worthily appraise its higher aims. Further, a private hospital must be more or less a continual temptation to the medical conductor. It is so easy to make it a means of advertising, and it has to be kept filled.

Gratuitous attendance is another unsettled question, concerning which every member of the profession is a "law unto himself." It is desirable that some uniformity of practice should be established. It is a general custom not to charge fees to medical men, but Dr. Saundby says: "Medical practitioners have no right to the gratuitous services of their colleagues." To what relations of a medical man should gratuitous attendance be extended? I would say only to those actually and absolutely dependent on him, and living in his house. What about the families of deceased practitioners? There seems to be no general rule. Each case must be treated on its merits. I was once adversely criticised for charging the widow of a medical man. She was living with and apparently dependent on her son, who was in a good position, and I did not even know at the time that her husband, long dead, had been in the profession. It is customary to see medical students and nurses without fee; some extend the custom to dentists and chemists, but I don't see why, and don't think it ought to be done. In fact, it would be more satisfactory to everyone if gratuitous attendance were limited as much as possible. As Saundby says: "Medical practitioners should only forego their fees to those persons who are unable to pay, and should refuse to recognise any other grounds for the concession. The clergy, as a class, have no right to medical attendance without payment." Dr. De Styrap devotes several pages of his "Code of Medical Ethics" to justifying the position that "gratuitous attendance on ministers of religion and their families should no longer obtain." The profession, however, is not by any means unanimous on the question. Some do and some do not charge clergymen. My own practice in the past has been not to charge. I have lately come to the opinion that it is right to adopt Saundby's principle, and only remit fees to the clergy when they are obviously unable to pay.

If our scales of fees were more elastic and the minimum fees less it would be much easier to make it the rule to charge everyone. The rates adopted in the scales in use in New South Wales, Victoria, South Australia, and Queensland are very different, and it is desirable that they should be made more uniform. Thus, in Victoria the minimum fee for a visit or advice at the house is 10s 6d. In New South Wales, South Australia, and Queensland a minimum fee of 5s is permitted, and in New South Wales, for what is called a second-class visit in town, 2s 6d. Discrepancies occur also in the fees for operations. Any scale of fees must be necessarily elastic, and absolute uniformity is not to be expected. The scale adopted in New South Wales appears to me to be satisfactory, and the other States might very well come into line with it, at all events as regards the minimum. It may be interesting to note that the first Medical Society in Victoria—the Port Phillip Medical Association—in September, 1846, drew up a scale of fees for first, second, and third-class patients ranging from 10s 6d to 2s 6d. I have no hesitation in saying that fees will have to be lowered, especially in Victoria, and particularly the ordinary fee for general work. As my friend and colleague, Dr. Howard, pointed out, in his presidential address to the Medical Society of Victoria, at the beginning of the year, disease is less prevalent, population is increasing slowly (2 per cent. in 10 years, while the medical profession has increased 20 per cent. in the same time), and the number of patients attending hospitals has increased (probably 20, or even 30 per cent.). Under such conditions the incomes of the profession must suffer, and one remedy is a reduction of fees. Had fees been lower, and hospital accommodation not so lavish, many of those attending hospitals would have been paying fees to practitioners as private patients.

Private patients! Now we come to the relations of the profession to the individuals of the State, and of its members to each other—that is, to questions of medical ethics.

It is commonly held that medical, like all other questions of ethics, can be summed up by saying, "Whatsoever ye would that men should do to you, do ye even so to them." While it is true that all professional conduct should conform to this golden rule, society is so complex, and its members so varied, that different people may hold conflicting opinions as to "what men should do to them." Some generally recognised rules of conduct in professional relations are, therefore, desirable. Such rules, however, should be as general and as few as possible. Detailed, complicated codes of medical ethics are, in my opinion, a mistake. The more stringent the code the less likely is it to be carried out. The most ancient code of which we have any knowledge—that of Hamurabi, 1350 B.C.—was exceedingly drastic, and if carried into effect, which it probably was not, would have almost prevented the practice of surgery. It is generally recognised that the more laws are minutely coded, as in Rome and France, the less is progress possible; while in England, where there is no code, but Equity Courts exist, most advance has been made. Law and ethics, like everything else, must be modified with changed conditions and the gradual evolution of society. As regards medical ethics, it is necessary that every member of the profession should be informed as to generally recognised customs or conventions in his relations with his patients and his fellow practitioners. Very often so-called breaches of medical ethics are committed in ignorance. It would be well that medical students should receive instruction on the subject. It is also highly desirable that the laity should be more familiar than it is with the general principles of medical ethics. The public is too apt to think that what it calls medical "etiquette" is some mysterious system for the protection of the profession, with peculiar laws, differing altogether from the principles which regulate the conduct of ordinary people. It cannot be too strongly enforced that the ethical conventions of the medical profession are quite as much in the interests of the patient as the practitioner, and are simply intended to promote fair and honourable dealing.

Unfortunately it is to be feared that some members of the profession are to a certain extent responsible for the view of the public, and hold what I cannot but regard as mistaken opinions as to the relations of practitioner and patient. One of these is the idea that a medical practitioner has a kind of proprietary right to a patient. We all recognise that it is to the patient's interest that a medical man who has attended a patient for some time, and knows his personal idiosyncrasies, and the various affections he may have had, knows his "constitution," as it is popularly termed, should continue to attend, and if further opinion is desired, should, when possible, meet the consultant, and give all information. Again, it is not to the patient's interest that he should be attended by more than one medical man for the same illness and at the same time, except in consultation. Accordingly, it is a rule of medical ethics that a medical practitioner shall not see a patient, wittingly, who is under the actual care of another practitioner, except in consultation, or in a sudden emergency. But such a rule does not imply that, once a medical man has seen a patient, that individual becomes, as it were, his commercial property, and that neither the individual nor any member of his family must ever consult any other practitioner except with him or on his advice. I have here two letters bearing on these points from general practitioners in the country to a leading consulting physician in Melbourne. In one, complaint is made because the consultant had seen a patient, who had at some previous time been under the care of a country practitioner, in a local hospital, and given a different opinion without communicating with the man in the country. The other complaint is that the consultant had seen a patient, who had been previously under the care of the country practitioner, as a lodge patient, and had not only seen him, but requested him to further communicate with the consultant by letter. I will quote the actual words used by this practitioner:—"The principle is a very wrong one which allows patients to see consultants without the advice of their regular medical attendant." . . . "I understand now that a consultant is a man who consults with the patient, and not with that patient's ordinary medical man." The writer further accuses metropolitan consultants generally of "seeking to get our patients." Another instance that came under my own observation recently may be given. A patient saw a consulting physician at his consulting-rooms. After investigation, he advised her to go home, go to bed, and get a nurse. Finding she had some time previously seen a local practitioner, he arranged to meet him in consultation at her house, and leave the case in his hands. They met, but the local man was evidently annoyed, and demurred to going on with the case. He considered that his patient had no right to go to anyone unless he sent her, and that the physician had no right to see her and act as he had. I maintain that the attitude of these general practitioners is based on a misapprehension of the ethical rule previously mentioned. The first consideration must be the welfare of the patient. The general practitioner has no proprietary right in what he calls *his* patients. The patient has a perfect right to get any opinion he pleases. It may be that what he calls an "independent" opinion may not be so valuable as one obtained after a regular consultation with the previous attendant, who may give information considerably modifying the consultant's view of a case. On the other hand, a consultant may occasionally be unconsciously biassed by what he is told.

While a patient has a perfect right to change his medical attendant, there are circumstances which debar certain practitioners from attendance. The ethical rule in such cases is put clearly and briefly by Saundby: "No one is at liberty to take over the treatment of a case to which he has been called in consultation, or where he has acted as a substitute for the ordinary medical attendant." While preparing this address, my advice was asked about this very matter. A was away on a holiday, and arranged with a neighbouring practitioner, B, to see patients for him. A had previously attended the household of C. The wife of C sent for A, and A's wife asked B to go as A's substitute. After A had resumed practice, B was asked by the lady to attend her. He seemed to think he would be justified in doing so, as A had never actually attended her. I advised him to explain the ethics of the case to the lady, and suggest that she should get A. He did so. She still wished B to attend, and he seemed to think he had no option but to do so. I think he had, and could have declined to attend, because he acted in the first instance as a substitute. The patient had the option of sending for B in the first instance, but did not do so. She sent for A, and but for A's introduction, B might never have been called in. Dr. Roderick Maclaren recently gave an address on the relations of medical men to each other, in which he remarks: "We are too chary of exercising our right to select our patients, which is just as definite as a patient's to select his medical attendant. . . . It happens to most men, when acting for another, to be asked to continue an attendance for themselves; to do so would be a breach of good faith towards the man for whom he acts, who has trusted him as a friend to take his work, or otherwise help him." A friend cannot honourably supplant him. In short, it is not a question of medical ethics, or the interests of the patient, but of general ethics, of what is fair and honourable between man and man. Indirectly it may affect the patient. When A or B next go away, each will probably employ a paid *locum tenens*, in whom the patient may not have the same confidence as he has in either A or B.

Not only has a practitioner a right to select his patient, but also to select his consultant, or, rather, to refuse to meet a particular consultant. It is a right which should seldom be exercised; but I agree with Dr. Maclaren when he says: "It is not difficult to conceive of circumstances in which the request to meet some individual amounts to an insult, and it should be dealt with as any such occurrence would be in ordinary social life." It is generally accepted in this country that homœopaths should not be met in consultation. According to Saundby, it is the custom in England for consulting surgeons to meet homœopaths. He also raises the question whether the profession should not reconsider its attitude to homœopaths. He suggests that "boycotting for differences of opinion is unworthy of a profession based on natural science, in which conflicts of opinion are the inevitable condition of progress." I take it, however, that the objection to meeting homœopaths is based on ethical grounds, not on differences of opinion. It is because no man who regards medicine as a science, and has grasped its scientific principles, can honestly say he believes in the principles enunciated by Hahnemann. Huxley, in his Lectures on Evolution, said: "Scientific men get an awkward habit—no, I won't call it that, for it is a valuable habit—of believing nothing unless there is evidence for it; and they have a way of looking upon belief which is not based upon evidence, not only as illogical, but as immoral." Homœopathy is, as the Royal College of Surgeons of Ireland states in its by-laws, a deception. A practitioner can only assume the designation of homœopath for reasons which are therefore unprofessional, unethical, and immoral.

Professional secrecy may at times lead to ethical difficulties in practice. As a rule, the obligation of the ancient Hippocratic oath is still binding: "Whatever in connection with my professional practice, or not in connection with it, I see or hear in the life of men, which ought not to be spoken abroad, I will not divulge, as reckoning that all such should be kept secret." The law as to professional secrecy is most stringent in France, and there a medical man is in no difficulty as to his position. Under no circumstances, not even as a witness in a criminal case, can he reveal a professional secret. The only exception is when a crime is about to be committed, and when, by keeping silence, the medical man might make himself an accessory. When a crime has been committed, a medical man must not give information, if in so doing he reveals a professional secret, not even when an innocent person is wrongfully accused. In Great Britain there is no hard and fast law. While the Hippocratic oath is binding in ordinary circumstances, a medical man can be compelled to reveal professional secrets in a court of law. It was laid down by Mr. Justice Hawkins, in the case of Kitson v. Playfair, that no medical practitioner may state facts which have come to his knowledge in the course of medical examination without the consent of the patient, except in a court of justice, and under the direction of the judge, who has to decide each case on its merits. He is supposed not to allow unnecessary disclosures, but to see that no material facts which can assist the court in arriving at the truth are withheld. In Australia the law of evidence in regard to professional secrecy differs in different States. In New South Wales and Tasmania it is the same as in England—the medical man is not protected. In Victoria he must give evidence in criminal cases, but shall not in any others. Section 47 of the "Evidence Act" reads: "No physician or surgeon shall, without the consent of his patient, divulge in any civil suit or proceedings (unless the sanity of the patient be the matter in dispute) any information which he may have acquired in attending the patient, and which was necessary to enable him to prescribe or act for the patient." While this is the law, and notwithstanding the Hippocratic oath, occasions arise in which, I think, one is justified in taking all risks and communicating professional information concerning patients. This is especially so with regard to communicable disease. Some time ago a lady saw me on what she described as a delicate mission. A patient under my care was engaged to be married to a friend, who was an orphan. The lady believed this man to be dissolute, and suspected that he was being attended by me for a communicable disease. Would I tell her? I declined, on the ground of professional secrecy. I sent for the patient, and told him he must break off his engagement. He declined. I then said I must advise the girl's friends not to let her marry him. He objected to my doing so. However, I took the risk. I told the lady that, while I could not reveal the nature of the disease from which my patient suffered, I could tell her that he ought not to marry. Even in France, eminent authorities on legal medicine and ethics, as Tardieu and Garde, say that, in similar circumstances, "conscience must be heard above law."

I had intended to refer to some other matters, such as the relations of the profession to the public press, and also to the friendly societies. I fear, however, that I have overtaxed your patience already. I will, therefore, conclude by reminding you that, while the profession undoubtedly has many just grievances, there ought to be manifold compensations, at least to those of its members who "have a right spirit within them." Let me remind you also that much has been done to remedy these grievances by proper organisation, and more can yet be done. Our brethren in New South Wales have shown us the way, and it is to be hoped that the organisation of the whole profession, so satisfactorily achieved in New South Wales, may be extended throughout Australasia. It is to be hoped, further, that its aim will not be simply the selfish one of the material improvement of the profession, but will be primarily to promote and maintain the best traditions of the past, and to afford inspiration for scientific progress in the future. Let us not forget, amidst all our failures and disappointments, ethical and otherwise, that, in the eloquent words of Sir James Paget, our profession unites "those three qualities which have the greatest charm for pure and active minds—novelty, utility, charity," and that we can compete in the world, not for wealth and position, but, "in the nobler ambition of being counted among the learned and the good, who strive to make the future better and happier than the past."

Now I am at last ended. You may probably say: "There needs no visitor come from distant State to tell us this, such poor, obvious commonplace." I can only reply, like Hamlet—

> "Why, right; you are i' the right;
> And so, without more circumstance at all,
> I hold it fit, that we shake hands, and part."

SOME LESSONS FROM THE STATISTICS OF INFANTILE MORTALITY IN SYDNEY.

An Address delivered in the Section of Public Health, Australasian Medical Congress, Adelaide, 1905.

By W. G. Armstrong, M.B., Ch.M. (Syd.), D.P.H. (Camb.)
Medical Officer of Health for the Metropolitan Combined Districts, Sydney; President of the Section.

It will not be out of place to begin this address by drawing a comparison between the infant mortality of England and Wales and that of New South Wales. Table I gives the materials for such a comparison. The table gives the mean of 10 years' statistics, and has been extracted from the annual reports of the English Registrar-General and the New South Wales Government Statistician. Corresponding figures for the city and suburbs of Sydney have been introduced into the table, showing the effects of urban conditions upon infantile rates. The rates in the table, as throughout this address, are calculated on the number of deaths under one year of age per 1000 births, which is the most accurate method of stating such deaths.

There is a great contrast between the total infantile mortality of England and that of New South Wales. The former exceeds the latter by 44 per cent., and is 25 per cent. greater than the infant mortality of Sydney. This difference is one of relatively recent growth, as in former years the infantile mortality of New South Wales exceeded that of the mother country.

With so great a difference in the totals it is not surprising that most of the component rates should be in favour of New South Wales. As a matter of fact, under the 13 different headings which compose the totals in the table there are only two under which the English infantile death rates do not exceed those of New South Wales. The two in question are diarrhœal diseases, with an English mortality of 29·1 per 1000 births, as against 30·7 per 1000 births in New South Wales, and congenital defects, in which the rate (3·9 per 1000 births) is exactly the same in both England and New South Wales. Very striking differences are observed in the

TABLE I.

DEATHS OF INFANTS UNDER ONE YEAR PER 1000 BIRTHS REGISTERED.

MEAN OF 10 YEARS OBSERVATION—ENGLAND AND WALES, 1892-1901; NEW SOUTH WALES AND SYDNEY, 1895-1904.

	Measles.	Whooping Cough.	Pneumonia and Bronchitis.	Diarrhœal Diseases.	Convulsions.	Dentition.	Suffocation.	Atrophy, Debility and Inanition.	Premature Births.	Congenital Defects.	Tubercular Diseases.	Syphilis.	All other Causes.	All Causes.
England and Wales..	3.0	5.7	25.2	29.1	17.8	2.4	2.0	20.8	19.1	3.9	7.5	1.4	15.9	154
New South Wales ..	.4	3.3	10.3	30.7	8.2	1.1	.6	15.6	14.3	3.9	3.5	1.0	14.5	107
Sydney and Suburbs	.6	3.1	11.2	40.9	6.5	.7	.8	17.6	16.0	4.6	3.9	2.0	15.0	123

TABLE II.

SYDNEY AND SUBURBS.

DEATHS OF INFANTS UNDER ONE YEAR PER 1000 BIRTHS FOR THE YEARS 1875-1904 INCLUSIVE.

Year.	All Zymotic Diseases except Diarrhœa.	Pneumonia and Bronchitis.	Diarrhœal Diseases.	Convulsions.	Dentition.	Atrophy, Debility and Inanition.	Prematurity	All Congenital Defects.	Tubercular Diseases.	All Causes.	Combined Infantile Mortality from causes in columns 4, 5, 6 and 7.
1	2	3	4	5	6	7	8	9	10	11	12
1875 ..	22.0	14.1	24.7	18.6	8.4	43.6	15.0	2.6	10.9	176	95.3
1876 ..	19.0	12.2	26.1	20.1	5.2	40.7	13.0	3.1	13.2	169	92.1
1877 ..	15.9	10.8	32.5	16.6	7.4	28.4	11.9	3.6	10.5	156	84.9
1878 ..	25.8	13.1	29.6	19.8	5.0	32.5	11.9	3.6	9.5	173	86.9
1879 ..	9.5	11.5	36.3	20.6	5.1	30.8	10.4	1.8	9.8	153	92.8
1880 ..	18.4	21.1	32.2	24.2	5.6	43.2	13.6	3.2	7.5	192	105.2
1881 ..	12.1	14.8	32.1	22.8	4.3	35.5	8.9	2.5	9.2	162	94.7
1882 ..	12.7	17.1	42.0	20.6	5.9	36.9	12.1	3.6	9.3	183	105.4
1883 ..	10.3	13.8	31.9	19.0	4.6	38.8	12.9	2.7	9.2	163	94.3
1884 ..	12.3	15.7	36.1	21.3	3.4	40.5	10.3	4.1	9.7	172	101.3
1885 ..	10.9	14.5	39.9	22.3	6.8	42.2	13.3	2.5	11.1	186	111.2
1886 ..	11.3	14.5	37.3	17.4	5.9	37.2	12.4	4.6	11.3	173	97.8
1887 ..	6.3	10.5	34.6	14.2	6.3	22.1	12.6	3.4	9.5	140	77.2
1888 ..	6.9	12.3	39.0	14.5	5.2	30.9	14.3	2.9	9.3	152	89.6
1889 ..	14.8	16.2	44.4	14.0	6.6	25.5	13.6	4.3	8.7	172	90.5
1890 ..	6.2	14.6	31.2	13.3	3.9	20.0	15.9	3.1	6.2	135	68.4
1891 ..	8.7	17.7	34.5	13.6	4.0	23.9	14.8	3.8	5.1	148	76.0
1892 ..	7.8	11.0	30.5	10.4	5.0	23.7	14.4	2.5	5.5	130	69.6
1893 ..	12.6	11.7	37.9	13.5	1.6	25.7	13.9	4.5	5.8	147	78.7
1894 ..	10.0	10.6	35.4	10.9	.2	23.7	14.7	4.5	5.4	134	70.2
1895 ..	7.0	10.1	39.2	9.0	.7	21.7	15.1	3.8	5.4	130	70.6
1896 ..	3.7	9.7	45.4	9.5	.4	24.5	14.4	4.2	5.4	139	79.8
1897 ..	3.5	12.8	43.4	8.9	.4	21.2	17.1	3.7	3.9	129	73.9
1898 ..	14.7	17.9	46.1	9.5	.3	22.8	15.9	5.0	5.5	154	78.7
1899 ..	9.2	10.7	33.6	6.1	.2	16.8	17.1	4.6	4.7	120	56.7
1900 ..	2.8	8.3	36.4	7.6	.3	16.0	15.4	4.2	3.6	109	60.3
1901 ..	10.3	11.8	37.4	5.5	1.4	17.1	15.5	4.2	2.9	120	61.4
1902 ..	5.8	10.7	39.0	2.7	1.5	12.5	16.4	4.6	3.8	112	55.7
1903 ..	6.7	12.5	44.2	3.9	.8	12.5	14.5	5.4	2.3	116	61.4
1904 ..	5.1	8.4	31.0	3.2	.7	11.4	18.8	6.5	2.0	98	46.3

mortality from pneumonia and bronchitis, which is nearly 150 per cent. greater in England than in New South Wales, and in those from tubercular diseases and convulsions, both of which are in England more than double the New South Wales rates.

That the death rate from respiratory affections should be greater in a country with the climatic conditions prevalent in the British Isles than in New South Wales is not astonishing; but the great excess in deaths from convulsions is more difficult to account for, and it appears to me must be due to divergences in the practice of certification or in classification. The relative superiority of the position of New South Wales as regards infantile deaths from tubercular diseases cannot, I think, be dissociated from a lesser prevalence of tuberculosis among Australian dairy cattle. But probably the most important factor is that the standard of living among the poorer classes in Australia is higher than among the corresponding population of Britain. Among the causes predisposing to tubercular disease, a food supply insufficient in quantity or defective in quality ranks high. It is to be noted that 30 years ago the infantile death rate from tubercular diseases was higher in New South Wales than in England, a statement which is equally true of the general infantile mortality. During the past 30 years the English infantile mortality has actually shown a tendency to increase, while that of New South Wales has in the same period declined considerably. Table II shows that in Sydney and suburbs the fall has been continuous and fairly regular since the year 1886, when it stood at 173 per 1000 births, until 1904, when it reached the minimum of 98 per 1000 births.

The influences which bring about infantile mortality may be classified generally as (1) hereditary, (2) intra-uterine, and (3) postnatal. To what extent each of these groups of causes is severally responsible for the infantile mortality of cities is extremely difficult to determine. As regards the first and second groups, very little effective control can be hoped for in the present state of our knowledge, and it is noteworthy that deaths classified under two headings which fall within one or other of these groups, namely, prematurity and congenital defects, have latterly shown a slight but undoubted tendency towards increase in Sydney (Table II).

The most important, numerically, of the causes of death among children under 12 months of age in New South Wales, as in Great Britain, is diarrhœa. Diarrhœal diseases, which include epidemic or summer diarrhœa and enteritis, as well as the more sporadic forms of fatal diarrhœa which occur from week to week throughout the whole of the year, are annually responsible in England for 29·1 deaths in every 1000 births, and in New South Wales for 30·7 deaths; while in Sydney the number of children who succumb during their first year to this cause is not less than 40·9 out of every 1000 births.

Apart from rigid mathematical or experimental proof, there are few facts better established than the intimate connection between infantile diarrhœa and improper feeding. Ernest Holt in his "Diseases of Infancy and Childhood" emphatically expresses the dictum, "This disease prevails to the extent to which other food than breast milk is given to infants"; and the weight of all authority and of common experience points unmistakably in the same direction. But the influence of the food factor is not only shown in the deaths from infantile diarrhœa.

The cause of infantile deaths, which is numerically of second importance to "diarrhœa," is that which is classed by the statistician under the heading of "atrophy, debility, and inanition," all of which expressions are of course synonymous for the same pathological condition, or, rather, for the same clinical group of symptoms. Looked upon as a fatal disease, they were responsible for 17·6 infantile deaths in every 1000 births in Sydney during the past 10 years.

Atrophy, debility, and inanition are all very loose terms, and but little superior in accuracy to "dropsy," since they ignore the primary cause of the physical condition which they indicate. In so far as they convey any information, it is that of inability to assimilate food, a pathological condition which frequently, probably in the majority of cases, is a sequel to an attack of acute diarrhœa. Even in those cases in which the condition has not been ushered in by an attack of acute diarrhœa, clinical evidence is strong on artificial feeding as a cause.

Let me quote Holt again. Speaking of marasmus—another synonym for infantile atrophy—he says: "In the vast majority of cases it depends upon two factors—the food and the surroundings. . . . The following is the story most frequently told at the hospitals: 'At birth the baby was plump and well nourished, and continued to thrive for a month or six weeks while the mother was nursing it; at the end of that period circumstances made weaning necessary. From that time the child ceased to thrive. It began to lose weight and strength, first slowly then rapidly.' "

Eustace Smith sets forth the four principal causes of infantile atrophy thus:—(1) Unsuitable food; (2) chronic vomiting (gastric catarrh); (3) chronic diarrhœa (intestinal catarrh); (4) constitutional diseases. The same opinions are expressed by every author of repute.

Looked upon as causes of death, infantile convulsions and teething may also be regarded as due to artificial feeding. The latter, which I am glad to point out is rapidly disappearing from Sydney statistics as a cause of death, ought certainly never to be so assigned in any certificate. That it still is given occasionally on the certificate is a satirical reflection on the scientific medicine of the present day.

The diagram which I have prepared from the statistics published by the New South Wales Registrar-General and Statistician represents the mean monthly deaths from diarrhœal diseases (diarrhœa, cholera, dysentery and enteritis), atrophy, convulsions and dentition at all ages for the past 30 years in Sydney and suburbs. Each vertical square on the diagram represents a rise or fall of 10 per cent. above or below the mean. It should be premised that the curves ought to have been constructed on weekly figures and for infantile deaths only, but the data necessary for these are, I regret, unavailable. The curves are interesting. In the first place they all closely resemble one another in their salient outlines. Practically at their minimum level during the months of June, July, August, and September, they begin to rise in October, and continue to rise during November and December. The diarrhœa and atrophy curves attain their apex in this latter month, and show a beginning of a fall in January, but the curves of dentition and convulsions are at their highest in January. The curve of convulsions shows another departure from the common type in a slight fall in December, which is an intensification of a tendency in the other three curves to fall away slightly in December after their abrupt November rise. From January to February there is a marked fall in all the curves and thereafter a more gradual decline to the minimum. Another point of difference between some of the curves is the lesser amplitude of departure from the mean observed in the curves of atrophy and convulsions, when compared with those of diarrhœa and dentition. But the close general similarity of the curves thus demonstrated is strong presumption in favour of identity of etiology of the diseases classed under these several heads, and clinical observation further supports this presumption, so that I think I am justified without further labouring of the subject in treating all these assigned causes of infantile deaths as essentially one. Let us now examine Table II. and see how this is borne out by the vital statistics of the infantile population of Sydney during the past thirty years.

In the table, causes of death which are intimately connected with the feeding of children have been placed in juxtaposition. Diarrhœa as a cause of death actually shows an increasing mortality during the past thirty years, whereas the headings of convulsions, dentition, and the various synonyms for atrophy all show a strongly diminishing tendency. Convulsions as an assigned cause of death has decreased from 18·6 deaths per 1000 births in 1875 to 3·2 in 1904, or 83 per cent.; dentition from 8·4 to ·7, or 92 per cent.; and atrophy, debility and inanition from 43·6 to 11·4, or 74 per cent. These enormous falls would be quite incomprehensible except on the supposition that increased accuracy of diagnosis and certification has gradually transferred most of the deaths which would formerly have been loosely attributed to them to some other heading, and a brief examination of the table leads to the conclusion that the only headings to which such deaths could have been transferred are those of diarrhœa or enteritis. And this supposition probably exactly represents the actual facts, except that the sudden diminution in deaths from dentition between the years 1892 and 1894 suggests the introduction of a modification in the system of classification adopted by the Registrar.

We shall therefore get a clearer mental picture of the statistics of infantile mortality due to improper food as exemplified in Sydney, if we combine the mortality from the several causes—diarrhœa, convulsions, dentition and atrophy. This I have done in the last column of Table II., and the result is a column of figures which represent a mortality having a slight tendency to increase between the years 1875 and 1886. After the latter year the mortality from the combined causes began to fall, and has continued to diminish in a tolerably even curve until the present time. We shall inquire into the probable causes of these phenomena presently.

It is advisable at this point to clear the ground by expressing the opinion that a review of, the causes of infantile mortality, having any useful end in view must practically resolve itself into an investigation into the circumstances connected with the mortality from diarrhœa and those other causes of death which depend upon the defective food supply of infants. Prematurity and congenital defects as causes of death we can hardly at present hope to modify. Tubercular diseases, as a factor in infantile mortality, have gradually during recent years lost most of their significance. Respiratory diseases, as represented by pneumonia and bronchitis, evidently depend almost entirely upon seasonal influences, and though the mortality from these diseases fluctuates widely from year to year, the oscillations depend chiefly upon the character of the seasons, and the means of series of years show little movement either of advance or of retardation. Zymotic diseases, other than diarrhœa, constitute the other important heading. The infantile deaths under this heading are due for the most part to measles and whooping cough. There has been a marked fall in infantile deaths under this heading, as shown in the table, and the present rate in Sydney is between 5 and 6 per 1000 births.

The scheduled causes of infantile deaths which depend upon improper food, or dietary diseases, as they may be called, account for about one-half of the total infantile mortality. They have, therefore, a far more important influence in determining the amount of infantile mortality than any other group or combination of groups of diseases. The facts that they are admittedly dependent upon improper feeding and that their fatality has largely diminished and is still on the down grade argue, that, as causes of death they are controllable. Can they not be more thoroughly controlled ?

Dr. Hope, the Medical Officer of Health of Liverpool, England, recently remarked that in cities an infantile mortality of 100 deaths per 1000 births might be regarded as an ideal minimum of inevitable deaths during the first year of life. This dictum of course applied to England and to English conditions. In Australia (the statement is based upon Sydney figures, but I have no doubt they are on the whole applicable to the other large towns of Australia), where the infantile deaths from tubercular, respiratory, and zymotic diseases are very much less than the English experience, the figure for infantile deaths, which must be regarded as unavoidable, should be considerably lower than the standard set up by Dr. Hope.

It is not my intention in this short address to enter at all deeply into the question of the influence of meteorological conditions upon the mortality from dietary diseases. Ballard, in his classical report to the English Local Government Board in 1888, went very fully into this subject, and his conclusions are well known. His "working hypothesis" connected the essential cause of diarrhœa with the life process of some unknown micro-organism resident in the more superficial layers of the soil, the vital manifestations of which are dependent among other things, perhaps principally upon conditions of season and on the presence of dead organic matter, and which finds, especially at certain seasons, nidus and pabulum in human food, where it manufactures a substance which is a virulent chemical poison. This "working hypothesis" up till the present time sums up the knowledge we possess as to the essential cause of diarrhœa. We have made but little advance in this direction.

Other propositions of Ballard's are certainly not applicable to Sydney conditions, however true they may be in England. His observations on the relation between the summer increase of diarrhœal mortality and the temperature registered by a four-foot earth thermometer do not hold good here. There are, it is true, no records of the temperatures registered by the four-foot earth thermometer in Sydney, but there are complete records of the temperature of the earth five feet below the surface for the past 30 years, and these differ so slightly from the four-foot observations that they may be regarded as practically identical. Ballard's observations referred to are as follows :—

(*a*) The summer rise of diarrhœal mortality does not commence until the mean temperature recorded by the four-foot earth thermometer has attained somewhere about 56° F., no matter what may have been the temperature previously attained by the atmosphere.

(*b*) The maximum diarrhœal mortality of the year is usually attained in the week in which the temperature recorded by the four-foot earth thermometer attains its mean weekly maximum.

(c) The decline of the diarrhœal mortality . . . coincides with the decline of the temperature recorded by the four-foot earth thermometer, which temperature declines much more slowly than the atmospheric temperature.

In Sydney a comparison of the records of five-foot earth temperatures for 30 years with the weekly records of diarrhœal mortality shows (1) that in many years the five-foot earth thermometer does not register below 56° F. at any time, consequently that temperature cannot be regarded as a critical one; (2) that the maximum diarrhœal mortality of the summer in Sydney is reached in December, whereas the mean weekly maximum of the five-foot earth thermometer is generally not reached till March and never before the end of January; (3) that the decline of the summer diarrhœal mortality in Sydney does not begin till March. All these points are shown in the attached diagram, which exhibits the rise and fall in the diarrhœal mortality in Sydney and suburbs and the variations in the meteorological data from week to week during the years 1902-1905. While, however, this is the case as regards the earth temperature, the relation of shade temperature to diarrhœal appears to merit investigation.

The summer rise in diarrhœal mortality in Sydney usually begins about the last week in October or the first week in November, from a week to a fortnight after the mean temperature in the shade permanently attains a height of 60° Fahrenheit, and the diarrhœa mortality rise continues to about the middle of December, when the apex is attained, and the descending curve begins, falling before the apex of the mean temperature curve, is reached (during January and February). Having once begun, the fall in diarrhœal mortality continues evenly, apparently without reference to the temperature curve until the minimum of the mortality curve is reached in September. Thereafter a slight rise occurs in October, but the real rise is deferred till November.

If one allows for the average duration of illness in fatal cases of diarrhœa, it will appear that the beginning of the summer epidemic manifestation of diarrhœa in Sydney is very nearly coincident with the time at which the mean temperature in the shade touches 60° Fahrenheit. Out of 279 cases of fatal diarrhœa in infants in the city of Sydney which I investigated during the years 1902-1905, the average duration of illness was found to be 28 days, and the duration of illness in individual cases was as follows:—

Week of Illness.	Died.	Per cent. of all cases.
During the first	107 ..	36·2
„ „ second	58 ..	20·8
„ „ third	35 ..	12·5
„ „ fourth	19 ..	6·8
„ „ fifth	5 ..	1·8
„ „ sixth	11 ..	3·9
„ „ seventh ..	4 ..	1·4
„ „ eighth	16 ..	5·7
After the eighth	30 ..	10·7

Allowing for two days' delay in registration of the deaths, which appears to be about the average, and a very short incubation period, it would seem from the above figures that between one and two weeks after the critical mean temperature in the shade, if there be one, has been recorded, a response should appear in the rise of the curve in the registered mortality from diarrhœa; and this is seen to be the case after a mean temperature in the shade of 60° Fahrenheit has been reached.

When the epidemic mortality has once received a start it gathers force rapidly throughout a period of from three to four weeks, after which it begins to decline without further relation to the shade temperature curve. A fairly good simile for the phenomenon is the pressing of the trigger of a gun, and the outburst of diarrhœal mortality is the explosion which follows. The best expression of the facts which I have come across in medical literature is one by Ernest Holt, who says: "It appears that an average mean temperature . . . of about 60 °Fahrenheit is required to start the epidemic. Not many cases are seen until such a temperature has lasted for some days. The explanation of the high mortality appears to be . . . that the majority of the susceptible infants are unable to withstand the first very hot month. Humidity and rainfall, according to the most careful investigations of Siebert in New York and Babinski in Berlin, do not influence either the prevalence of summer diarrhœa or its mortality."

The last statement of Holt's is striking, in view of the contrary opinions held by most English authorities, notably Hope, of Liverpool, and Newsholme, of Brighton, on the influence of rainfall upon summer diarrhœa. Personally, I have always held the opinion that copiousness of rainfall during the hot summer months bears a very close inverse relationship to the prevalence of diarrhœa and cognate disorders; and without being able to produce any convincing statistical evidence to back this opinion I must confess to retaining it still. But an investigation into the records of meteorological data in Sydney for 30 years and their coincidence with fluctuations in the summer mortality from diarrhœa is disappointing. All one can definitely gather from them is that on the whole diarrhœal mortality has been higher in dry and hot summers than in cool and wet ones, and *vice versa*. It appears to be very difficult, if not impracticable, to separate the influences of draught and heat in this connection. Even when they are combined, and both excessive, there are exceptions to the general proposition that under such circumstances the mortality from diarrhœa is coincidently high.

For instance, the summer of 1904-1905, with the highest mean temperature in the shade (with one exception, that of 1895-6) and the lowest rainfall (without exception) for 30 years, also witnessed the lowest diarrhœal mortality experienced in Sydney for 30 years.

But whatever may be the effect of meteorological conditions upon the incidence and fatality of diarrhœa and its cognate causes of mortality, there must be some other cause or causes at work of almost equal or even greater importance. If not, there could be no progressive change in the mortality from this group of diseases such as has been experienced in Sydney during the past 30 years. And this is a most comforting reflection; otherwise we should have a very hopeless task set us in the reduction of infantile mortality from these causes, since we have no control over meteorological conditions.

I have already drawn attention to the course of movement shown by the Sydney mortality curve from diarrhœa and its kindred diseases, and indicated that the level of the curve showed no particular tendency towards movement in either direction until after the year 1886, when a downward movement set in which has been progressive until the present time. In the 11 years prior to 1886 the infantile mortality rate from those diseases which I have discussed fluctuated between 84 and 111 per 1000 births, with a slightly higher tendency towards the close of the period in 1886 than at its beginning in 1875. Since 1886 the rate has fallen, till in 1904 it stood at 46 per 1000 births. What have been the causes at work in Sydney which have so reduced the rate?

Infantile diarrhœa is no doubt directly due to food infection. This much is proved by the relative immunity from the disease of breast-fed children. In a series of 60 infants under three months of age who died from diarrhœa in the city of Sydney during 1902-1905, and whose cases I investigated, I found that only 6·6 per cent. had been entirely breast fed, while 93·4 per cent. had been wholly or partially fed on other foods. During the year 1904 I made an inquiry into the methods of feeding of 621 living infants under the age of three months. The results showed that 72 per cent. were entirely breast fed, and the remaining 28 per cent. were wholly or partly fed on other foods. If these sets of figures are comparable, as I have no doubt in the main they are, since my inquiry into the feeding of living infants was conducted in the districts and among the classes of population which chiefly furnish the diarrhœal mortality, the mortality among infants under three months old fed wholly or partially otherwise than on the breast is in Sydney 37 times as great as among infants of the same age wholly breast fed. This startling discrepancy is only to be accounted for on the theory that by some means the essential cause of diarrhœa reaches the infant through its food. Food, however, is only to be regarded as the vehicle of the infection. Ballard regarded the upper layers of soil as the nidus of the infective material, and a large mass of evidence which has been accumulated since his classical report was published has done nothing to weaken his hypothesis. Perhaps the weight of evidence is rather in favour of the surface of the soil, instead of its upper layers, being regarded as the habitat of the diarrhœa organism or organisms, and diarrhœa is now rightly considered as a filth disease, and every movement in domestic and municipal sanitation which makes for cleanliness is to be looked upon as one step towards the diminution of this most fatal disorder.

The sanitary history of Sydney during the past 30 years lends support to this view. Prior to the year 1888 the water supply of Sydney was obtained from the Botany swamps, situated about five miles south of the centre of the city, in a low-lying, peaty and sandy morass on the shore of Botany Bay. The catchment area and conservation beds were liable to pollution from many sources, and the district of Botany itself has been for many years a hotbed of diarrhœa and typhoid fever. Since the year mentioned, the water supply of the city and suburbs has been obtained from a catchment area situated on mountainous sandstone country, about 50 miles to the south-west of Sydney—a source which is almost unimpeachable on sanitary grounds.

The change in the system of sewerage in Sydney has been no less important than that in the water supply. In 1877 the system of sewers in the city was about as bad as it was possible to be. The sewers were of various sizes and shapes, constructed in brick and stone, and all discharged into the harbour. The Tank Stream sewer, running through the centre of the city and entirely built over by dwellings and business places, was in a foul, dilapidated state, the sewage stagnating along an uneven invert, while the sewer air found vent through innumerable unplanned crevices and openings, not to mention the unventilated house drains.

The suburbs were entirely unsewered, and cesspits of the foulest description and the most insanitary construction were common both in city and suburbs. In that year the sanitary arrangements of the city were considered to be so defective that the Government of the day appointed a board to report on the subject, and the report brought to light many glaring evils. As a result of this report the present excellent system of sewers began to be constructed in the year 1885 and was steadily pushed forward until the year 1897, when the system serving the city was completed. Even in the year 1890 there was still a considerable number of filthy cesspits in the city, and in the suburbs as late as 1899 there were known to be 1559 of these abominations, and probably as many more existed unaccounted for. Almost all these insanitary conditions have now been removed, and the city and all the populous suburbs of Sydney are as well off as regards sewerage and water supply probably as any large city in the world.

In the year 1886 the Dairies Supervision Act came into operation, and was enforced year by year with gradually increasing stringency, improving vastly the conditions of the metropolitan dairies, and as a consequence raising the quality of the milk supply.

Finally the advent of plague in 1900 caused the municipalities of the metropolitan district to exercise their powers to make by-laws for the suppression of filth on premises, and to enforce them when made, and generally to put their municipal houses in order with such vigour as was before undreamed of.

It might have been anticipated that all these advances in sanitary conditions would have had a salutary effect on the infantile death-rate from diseases caused by food pollution, and the coincidence of sanitary improvement with progressively falling death-rates is so striking as to be convincing evidence of the causal relation of the one to the other

But there is one field of municipal endeavour in the prevention of infantile mortality, the soil of which has been but lightly stirred hitherto, but which with diligent tilth should yield a goodly crop. It is that necessary to break the vicious chain of events which carries the infective material from the soil into the stomach of the infant by preventing the pollution of the food supply, *i.e.*, the milk. The Dairies Supervision Act has already proved a step in this direction in Sydney. By enforcing many improvements in the construction of the dairies and milk shops it has lessened greatly the opportunities which existed for filth and micro-organisms to find their way into the milk. A vigorous enforcement of the adulteration of food clauses of the Public Health Act has also been of avail. The suppression of the practice of adulterating milk by the addition of water has diminished the chances of micro-organisms finding their way into the indispensable food of young children, and the prohibition of the use of preservatives has compelled the milk vendor to sell fresh milk only, and limited his opportunities of passing a stale and germ-laden fluid on an unsuspecting public.

The question, however, is constantly present in one's mind as to whether more pollution does not enter the infant's milk in the home of the infant himself than at the dairy, and in the course of transit to the consumer's dwelling. Newsholme believes that the home is the most common site of infection. And there are many reasons in support of his contention. No one who has been accustomed to visit the homes of the poor in the crowded slums of great cities will need to be reminded of the innumerable chances of pollution of the food supply of the infant, once he has been permitted to receive nourishment otherwise than from his mother's breast. Imperfectly cleansed bottles with long rubber tubes in which particles of sour milk curd adhere and decompose, setting up rapid changes in every fresh meal that is introduced into them; dirty methods of storage; the access to food of flies and other insects with feet swarming with micro-organisms after visiting heaven knows what foul garbage; dust from streets and yards carrying particles of manure, etc. These are only some of the dangers to which the infant life of the poor neighbourhoods of our cities is exposed. To minimise these dangers there are, it seems to me, two lines of procedure open. One is entirely new to us in Australia, but evidences of its value in the saving of infant life are rapidly accumulating in France, in England, and in the United States. I refer to the establishment of infant milk depôts and model dairies, established and conducted by private philanthropy, or preferably under municipal control, such, for instance, as that of Battersea, in London, or Rochester, in the State of New York. In these depôts sterilised milk produced at a model dairy is modified according to the requirements of the age of the child for whom it is intended, is put up in bottles of such a size that each contains one meal, and is sold to poor mothers in baskets each of which contains enough meals for one child for 24 hours at a price which barely pays expenses. At Battersea the charge for supplying an infant in such a manner is 1s 6d a week. The children supplied from the depôt are registered and their homes visited from time to time by a woman inspector, who notes the progress of each infant, and reports at the depôt. She also instructs the mother in the feeding of the child. Such statistics as are available in connection with these depôts, as well as those in France and other Continental countries, are of the most gratifying character, and show an immense saving in infant life from their operations. Indirectly also they are of great value in educating the public in the best methods of feeding young children, and the model dairies connected with the depôt are valuable as object lessons to the ordinary dairy farmer, whose ways and methods in the production of milk are never ideal and often disgusting. To all who are interested in this subject a perusal of Dr. McCleary's valuable little book on infantile mortality can be most heartily recommended. The other procedure to which I allude is purely educational in its method and has been in operation in the city of Sydney for rather more than a year. A daily list of all births registered in the city is obtained from the registrars, and within a few days after registration the home of each child born in a poor neighbourhood is visited by a woman inspector of the municipal council, who interviews the mother, talks to her confidentially on the management of the child, advises her as to the methods she ought to follow, and earnestly inculcates cleanliness, leaving also at each house a copy of a brief and plainly worded leaflet, setting forth the dangers of infantile diarrhœa and giving instructions on the feeding of infants. The principal points impressed on the mother by the inspector are the great superiority of breast nursing over every other form of feeding; should breast feeding be impossible the use of properly modified fresh cow's milk is advocated, and warnings against the long tube bottle and the use of starchy or patent foods are tendered. The conditions as to cleanliness and general sanitary state of the dwelling are noted by the inspector and reported by her at headquarters, where any action which may appear to be indicated by the information in the report is taken by the medical officer of health.

It is evident that the value of such a proceeding as this must largely depend upon the personal tact of the visiting inspector, and the municipality of Sydney has been fortunate in obtaining the services of a woman who is in all respects exceedingly well fitted for the work. It is worthy of note that in only two or three instances has there been the slightest objection or resentment on the part of mothers to these domiciliary visits.

Since this action was inaugurated in May, 1904, over 1400 homes of newly born children have been visited in this manner. The experiment is yet too recent for me to be able to offer you any useful statistics on its effects, and, moreover, such statistics would be obscured and their value diminished by the unusually low infantile mortality which appears to have prevailed throughout Eastern Australia during the summer of 1904-5, and which has evidently largely depended on causes beyond human control.

There are many other aspects of this most important and fascinating subject to which I might refer, but I feel that I have already taken up too much of your time and attention. I trust that our experiences in Sydney may be of some slight value to sanitarians in other States, and particulary to the members of this section.

SOME PRACTICAL POINTS IN GYNÆCOLOGY AND OBSTETRICS.

Presidential Address delivered in the Section of Obstetrics and Gynæcology, Australasian Medical Congress, Adelaide, September, 1905.

By William S. Byrne, M.D., M.R.C.P. (Lond.), Brisbane.

FIRST of all, on behalf of the executive of this Congress, allow me to welcome you to this the section of Gynæcology and Obstetrics—branches of our science and art which during the past ten years have made advances unexcelled by any part of the glorious professions of medicine and surgery.

The honour which has been conferred upon me by electing me president has been accepted with a full sense of my own shortcomings, but at the same time as a compliment paid not alone to myself individually, but to the medical profession of the State to which I belong. When I look back upon the names of past presidents of this section I confess to a feeling of pride that I am considered worthy to follow a train of such eminent men.

The history of Gynæcology is the history of surgery; and the history of to-day depends upon the alphabet and language of yesterday. The practice of medicine is giving way largely to the art of surgery, and judging from the trend of comparatively recent events, an elderly practitioner of the present day would be tempted to remark that the modern practice of medicine is surgery. And how true it is. I suppose most of us remember in the old days when we were boys being informed that Mrs. or Miss So-and-so was ill, or, in the words of that day, delicate, and we noticed that the lady in question was continually on the sofa or in bed, being taken out for a drive on fine days possibly, and that this sort of thing went on for years, and then our recollection of what happened grows faint, and the case of Mrs. or Miss X has quite faded from our memory. What happened in those days to all the cases of pelvic adhesions, diseased tubes, pus cases, intractable retroversions and tumours? How often nowadays do we hear the remark from elderly ladies that in their time there were no operations, inferentially meaning that as none were performed in their day, none ought to be done now; but our critics quite forget the years of chronic invalidism suffered by women in former times, and measure the ills of others by their own good health. The gynæcologist has been the pioneer in the forest of abdominal surgery since the time when Ephraim McDowell performed the first successful ovariotomy, but progress was slow until the discoveries of Lister and Pasteur enabled surgeons to perform their work without fear of septic peritonitis. All our sympathies go out to Baker Brown in the early days of the Samaritan Hospital, when he abandoned sections on account of septic poisoning; and it is difficult for us now to appraise at its true value the work done, the courage displayed, the indomitable determination and the enduring perseverance shown in spite of all obstacles thrown in his path by that surgeon of surgeons, Spencer Wells. When we consider that not alone the public, but even our own profession, were violently opposed to the new procedure in the method of saving life by the removal of ovarian tumours, and that he was even threatened with a court of inquiry if a patient died after operation, his marvellous determination to succeed and his disregard of the bitterest attacks made upon him point him out to be not alone a surgeon amongst surgeons but a man amongst men.

Whilst acknowledging the brilliant gifts of Spencer Wells, let us not for one moment forget the still greater achievements of Pasteur and our own countryman, Lister. Had it not been for Simpson and chloroform there would never have been a Wells; so without a Lister and a Pasteur surgery would have remained simply the handmaiden of medicine instead of becoming the virile and aggressive but withal the kind master. Medicine and surgery are wedded, and the greatest triumphs of recent years have been won in the field of pelvic surgery.

Many of those amongst us will remember an article published not so many years ago, entitled "A Plea for the Early Removal of Ovarian Tumours," and although we may look with our present-day experience with some amusement at the title of that paper, yet it is an index to the feeling of the profession at that period. At the present time one is almost tempted to write "A Plea for the Early Removal of Uterine Fibroids." It is still the tradition amongst physicians to view myomata as innocuous, harmless, and productive of but little discomfort; but the sooner this feeling is dispelled the better for our patients. Tradition is a good thing to have if we can only afford it, but in the treatment of fibroids it is apt to prove expensive.

About five years ago a London specialist in charge of the women's department at one of the large hospitals published a paper emphasising this tradition, and showing statistically that deaths from fibroids were most exceptional, and that removal except in urgent cases was not justifiable. I am glad to say that professional opinion is slowly veering round to surgical interference, and personally I strongly advise early removal. That uncomplicated myomata can be removed safely at an early stage is beyond all question; the mortality is little more than that of an ordinary oöphorectomy. The longer a tumour is allowed to develop, to contract adhesions, to block up the pelvis, to lessen resistance by continuous hæmorrhages, the more difficult and dangerous the surgical procedure becomes.

Who amongst us has not seen a wan, pallid woman, emaciated, unable to move unless it is to a couch, exhausted by continuous hæmorrhage, suffering from all the concomitants of the disease; a face drawn and disfigured by long and abiding discomfort; who has had drugs *ad nauseam* likely to alleviate the symptoms, and who, as a last resort, is handed over to the surgeon for operation? What are the probabilities of recovery from a long and difficult operation on such? We may view such a case with apprehension, but our duty is clear—we must afford the possible chance. Had the case been given to us in the early stage, how different would our feelings have been on approaching operative measures. This is no fancy picture, but is fairly familiar to us all. When we know the primary dangers of fibroids, namely, malignant degeneration, decomposition and gangrene, chronic nephritis, phlebitis, embolism, the dangers of pregnancy and labour, and the secondary dangers produced by hæmorrhages, debility, and all the discomforts of an invalid life, rendering the subject an easy prey for intercurrent disease, we are warranted in looking on a myoma with the gravest apprehension and advising removal at a time when such procedure is not especially dangerous. The statements that fibroids do not kill may be true enough; but one might with the same confidence say that typhoid fever never kills. Of course it does not; but the unfortunate patient dies all the same—of something else—either of pneumonia, exhaustion, heart failure, peritonitis, perforation, and a host of other complications, according to the fancy of the physician, but never of typhoid.

Curettage.—Amidst all this comparative safety in abdominal work owing to the perfection of aseptic surgery, let us for a moment consider a minor operation which is performed daily, namely, curettage. I must confess I am always more uneasy and anxious after this so-called trifling operation than I am after a clean abdominal section. Salpingitis, pelvic abscess, chronic pelvic peritonitis, and a host of other ills follow in the wake of this procedure, and we are all cognisant of cases in which the cause of severe pelvic disease is the simple operation of curettage. The reason is not that the operation was improperly performed, nor that asepsis was not thoroughly carried out on the operator's part, but that in the majority of cases where it is necessary the interior of the uterus is already intensely septic, and as there are no means by which it can be made clean, the curettage opens up new avenues for infection, and a septic inflammation which was at first limited to the uterine interior extends to all parts of the pelvis. In another class of case there has been an old inflammation about the appendages, and the operation lights up the smouldering fire afresh, and much damage is done before the flames are extinguished. Curettage is not an operation to be lightly thought of or lightly undertaken, particularly in cases of old pelvic trouble, but rather to be considered with a full apprehension of its after-effects; and while not restricting its use to the specialist, I would warn the general practitioner that he may be called upon to perform a difficult vaginal or abdominal operation as a direct result of the primary interference.

Retrodeviations of the Uterus.—The operations for the cure of retrodeviations of the uterus are becoming narrowed down to Kelly's ventro-suspensions or fixation and the Alexander Adams. Each procedure has its own especial advocates, but I cannot help thinking that for the great majority of cases a section is the better course to pursue. It is a great responsibility to condemn a woman to pessary life, and I do not think I have inserted one of those awful implements six times during the past two years. The Alexander Adams operation is suitable enough for simple uncomplicated versions where there is no pelvic disease; but it is wonderful what a lot of unconsidered trifles one discovers in a pelvis when one has a good look at it. It does not quite lie with the operator whether a suspension or a fixation is to be the result, for I have meant to suspend on certainly three occasions, and years later on, having to open the abdomen for some fresh condition, I have found the uterus firmly fixed to the abdominal wall. In retroversion during the child-bearing period, when a fixation is a somewhat risky proceeding to adopt, I have been in the habit for some years of doing the following operation:—After the parts have been well exposed and any extra-uterine trouble attended to, I free the round ligaments from the uterine attachment for about 2½ to 3 inches on each side, bore a hole with a pair of forceps through each broad ligament, pull the loops of round ligaments through, tie them together with linen thread at the back of the fundus, and insert a few catgut stitches through the now doubled ligaments and uterine peritoneum. This draws the uterus well forward, the ligaments are shortened at their strongest parts, and the risks of a future pregnancy diminished to a minimum. The operation is a little more difficult than a suspension or a fixation, but it seems to be more rational during the child-bearing period. I do not wish to claim priority for this little addition to the already great number of procedures in the treatment of versions, as a paper appeared in the *Australasian Medical Gazette* from the pen of a gentleman in West Australia some months ago in which much the same operation was described.

Linen Thread.—As I have mentioned linen thread as a ligature and suture material, let me say that I regard it as superior to silk. It is finer, stronger, easily sterilised, can be boiled over and over again without diminishing its strength, it is inelastic, and does not break easily. In the Lady Lamington Hospital it has quite taken the place of silk for ligature material; in fact, we have not used silk for a very long time. Of course catgut is the ideal material for buried suture, but where silk used to be always in evidence, I now prefer linen.

Eserine and Atropine.—I have found the hypodermic injection of $\frac{1}{100}$ of a grain of atropine just before an abdominal section, and $\frac{1}{40}$ of a grain of salicylate of eserine immediately after to be of great comfort to patient and surgeon. It starts the peristaltic action of the intestines, subdues vomiting, and lessens the difficulty of procuring an evacuation on the following day—a great desideratum in abdominal work. Some months ago I wrote a short paper on the subject, which appeared in the *Australasian Medical Gazette*, and further experience in the use of those two drugs has confirmed me in my opinion of their efficacy.

Puerperal Eclampsia.—I was about to direct your attention to the treatment of puerperal eclampsia, but as I see there is a paper promised on this subject we shall be able to discuss it later on. It has been aptly termed the disease of theories, and we are, unfortunately, no nearer the solution of the actual cause than we were when the connection between albuminuria and puerperal convulsions was first observed. Pathology does not lighten our darkness very much. In all cases we find parenchymatous nephritis with hæmorrhagic necrosis in the liver, thrombosis being primary and necrosis secondary, thrombi in the kidneys and lungs, pneumonia being common, hæmorrhagic extravasation between the muscle fibres of the heart, hemorrhages in the stomach and intestinal walls and central ganglia. How much these extravasations depend upon the violence of the convulsions, and how much upon disease of the vessels arising from the circulation of highly toxic blood, it is impossible to say; probably both conditions favour their occurrence, but the main point is that the post-mortem appearances do not help us toward the solution of the *fons et origo* of the disease—they are only the effects. Can a chronic nephritis in a pregnant woman set up a puerperal nephritis and can a puerperal nephritis cause a chronic nephritis? The general opinion answers these two questions in the negative, and I think that for our purpose we can consider puerperal nephritis a disease, apart altogether from the ordinary kidney inflammation. If recovery ensues after eclampsia, the albuminuria disappears in the course of two or three weeks, and clinical experience shows that if the fœtus dies, as a rule the convulsions cease, that is if the dose of the toxin has not been too large to be readily eliminated. Again, as in the acute nephritis of men and non-pregnant women, the so-called uræmic convulsion is not very common, whilst in the acute nephritis of pregnancy it is the rule; it is strongly suggested (although the kidneys are always found seriously and acutely affected) that pregnancy is necessary for those eclamptic seizures, and therefore the real course of the disease must be sought for in the fœtal or maternal structures in utero and not in the kidneys, though both conditions are necessary for the production of the eclampsia. Intoxication with the products of fœtal metabolism seems to be the most feasible explanation of the entrance of the toxins into the blood, though one may be met with the objection that if so, why should all eclamptics consist of 80 per cent. of primiparæ? I cannot help thinking that somehow nature, after the first effort, accommodates itself to conditions which have previously existed, and enables the excretory organs to eliminate the poisons.

In the treatment, prophylaxis is the first consideration, and if we can prevent the onset of the convulsions, our chief end is secured. The occurrence of a small quantity of albumen is by no means uncommon in pregnancy, so that although this sign by itself is not of necessity a danger signal, still it is enough to cause us a certain amount of anxiety as to future events. Purgation, a milk diet, and rest will probably tide us over the difficulty, but should a large amount of albumen be present, or albuminuria, accompanied by œdema or headache or fainting or visual disturbances, hyperemesis or persistent hiccough, we may be fairly sure that eclampsia is not far off, and our duty is to terminate the pregnancy at once. It is not good practice to temporise longer; the sooner the feeding of the blood with toxins ceases the better. We should look upon the fœtus and maternal structures in this case in the same way that we look upon a decomposing placenta in utero—an offending substance to be got rid of as soon as possible. Temporising where eclampsia is probable is a fatal policy; purgation, sweatings, diuretics, and drugs of all kinds are useless as long as the cause is allowed to remain. It reminds one of the parson's remark, who, when asked to pray for rain, replied: "It's not a bit of good while the wind is in the west." Established eclampsia may occur ante, intra, or post partum. Ante-partum eclampsia demands evacuation of the uterine contents as soon as possible, and the character of the convulsions influences the methods to be adopted for this purpose. If slight and not recurrent, one may be satisfied with passing two or three bougies into the uterus, or if some more certainty and haste is requisite, dilatation and the introduction of a De Ribes' bag. If the convulsions are very pronounced, and immediate delivery imperative, rapid dilatation by means of Bossi's instrument is indicated. Should it be impossible to dilate the canal to the required extent, with a reasonable degree of safety, then Cæsarean section, either abdominal or vaginal, must be considered, and I am convinced that in many cases of rigidity of the canal, section is safest and best for the patient.

Eclampsia intra-partum must be treated on the same lines—extraction of the child and placenta at the earliest moment practicable, having due regard to the safety of the maternal structures.

In eclampsia post-partum we have to deal with the results of toxæmia, and our efforts must be aimed at controlling the convulsions and eliminating the toxins.

To fulfil the first condition morphine in fairly large doses, commencing with half a grain, is to be recommended; in acute nephritis morphia can be given freely; it is in the chronic granular kidney that its use is contra indicated. As well 40 grains of chloral per rectum, repeated in an hour, is useful. Chloroform is of doubtful utility, though by its administration the eclampsia for a time is lessened, but its continuance for any lengthy period is harmful.

To eliminate the toxins free purgation is requisite, and I know of nothing better than croton oil dispensed in butter. Where there is a bounding high tension pulse, venesection is indicated, but infusion of salt solution into a vein must be cautiously approached, as it increases blood pressure and may defeat the object we have in view. Pilocarpine has been to me a disappointing drug; I never could satisfy myself that it had any effect on the convulsions, though theoretically profuse perspiration ought to help in relieving the kidneys. If it is given, nothing much less than a third of a grain is of service.

In conclusion, let me say how much I deprecate the opinions sometimes expressed, that nothing is any good for established eclampsia, intra or post partum, that we know nothing about it, and that our treatment being empirical is not likely to be of any use, that we should not deliver, but give baths and drugs, and pursue an expectant policy. Gentlemen, pessimism in the treatment of puerperal eclampsia is to be condemned; want of faith in ourselves is the handmaiden of failure.

Australasian Association for the Advancement of Science.—The next session of the Australasian Association for the Advancement of Science, which was to have been held in Adelaide in September, 1906, has been postponed until January, 1907, when it will meet under the presidency of Professor Baldwin Spencer. The alteration has been made because September is not a convenient date for many of the educational people who are members to attend.

THE POSITION, USE, AND ABUSE OF MENTAL THERAPEUTICS.

By J. W. Springthorpe, M.A., M.D., Physician to the Melbourne Hospital, Lecturer in Therapeutics, etc., to the Melbourne University, Official Visitor to the Metropolitan Asylums, Victoria.

By his very claim that the aim of his art is to secure the "*mens sana in corpore sano*," the physician is pledged to a recognition of mind and matter as the fundamental entities ; and he is required to possess some clear understanding of their relationship and interactions. But neither medical education nor clinical training, as ordinarily experienced, is calculated to give the average medical man anything like an adequate idea of the part played in health and disease by the psychical factor, and, as a result, we find the profession generally unduly unconcerned and even ignorant as to its true position and therapeutic application.

The situation may perhaps be simply yet satisfactorily stated as follows :—Thanks to recent discoveries we are now able to trace all forms of matter back to the luminiferous ether itself, whilst we find life entering at a certain stage of molecular complexity—it matters little whether as a fresh kind of movement or a new sort of force. And it is more rational to place purposive thinking mind behind insensate mass than to regard the psychical as progressively evolved from the physical. Omnipresent supreme mind thus comes before even illimitable ether, and, in ultimate ontology, idealism—the explanation of everything by mind—is more probable than materialism—the explanation of everything by matter. But whilst outside the finite though incalculable universe mind may thus exist alone, or in some unknown combination, yet, within known bounds, there is always a psycho-physical parallelism and realism, the explanation of everything by mind or matter, but neither alone, is the only hypothesis that accounts for all present conditions. As to the exact inter-relationship, however, of mind to matter there is still room for difference of opinion. According to the writer of the article on "Psychology" in the Encyclopædia Britannica, the theory with which we must at present rest content is "that the physical and the psychical are not independent and 'closed' against each other, but that in certain circumstances—*e.g.*, in perception—physical changes are the occasion of psychical, and that in certain circumstances—*e.g.*, in purposive movements—psychical changes are the occasion of physical, neither alone being explicable from the other." The same writer represents them further as "both keeping invariably and exactly in line in development and in efficiency, in intensity and complexity," and "even structure to be regarded as partly shaped and perfected by function rather than function as solely determined by structure itself mechanically evolved."

Thus, just as amidst all mental and moral operations there is a physical factor always present, often dominant, and potent even where unsuspected, so also amidst all physiological and pathological processes there is a psychical factor, equally operative, though unrecognised by material science. But whilst, under existing conditions, there is no possibility of the physical factor being overlooked, or of its claims being neglected, the psychical factor is too often both ignored and unused. It has no place in the ordinary curriculum of study, it has only a few half-friends in the wards, it is not found in the post-mortem room, and it is uncultivated, if not unknown, in most everyday practice. And yet it has claims which demand the most serious consideration, ramifications that are wider, and effects that are more remarkable, than those of any other branch of therapeutics.

In its essence the psychical factor in each one of us may well be assumed to be akin to the omnipresent supreme mind, a particulate entity thereof, so to speak. And though the deep-thinking East has decided differently, it probably enters each human cortex inherently free from material stain. It has, unquestionably, some power of choice, though its independent action seems limited, like that of a player by his instrument, or like the movements of the epicycle by the general sweep of the Ptolemaic orbit. Rightly, too, as theology may hold it to be ultimately destined after trial and testing, ever and always to choose in harmony with the supreme, still, at present, it is heir to a material inheritance which it cannot alter, open to physical influences which it may not control, and operative through physical channels. And yet it initiates change, modifies function and environment, regulates organs, is a final court of appeal in many systematic disturbances, and plays a fundamental part in disease, structural as well as functional, physical as well as psychical.

The systematic utilisation of this psychical factor in the maintenance of health and in the cure of disease constitutes mental therapeutics. Even proverbially, contentment is great gain, we laugh and grow fat, joy stimulates, fear depresses, worry disturbs, and fright acts like a shock. And of necessity, the physician himself and his hygienic, dietetic and medicinal assistants always exercise some psychical, over and above the necessary physical, influence. But these ordinary sporadic and almost automatic attempts do not deserve the name of mental therapeutics, or place this line of treatment in the unique position to which it is rightly entitled. To do this we have to make it our aim systematically to arouse in our patient all the powers of auto-suggestion. This demands a mixture of insight, knowledge and confidence, but no special or supernatural powers. In theory, this means that we have to seize the psychological moment, to select the most appropriate suggestion, and to apply it in the aptest manner. And the best practical procedure is similarly both personal and natural. We secure the patient's confidence by making him believe that we understand his case, that we sympathise with him, and that we can and will do the best for him. If therefrom he can create—as he frequently can—the certainty of cure, cure, if possible, is at hand. Everything else, environment and attendants, are also to be then utilised to convey not only their ordinary physical cargo, but the special therapeutic suggestions, which are often of much greater importance, and which at times may deserve to be called specific. Hence, for example, the superior value of "Spa" treatment as compared with the home drinking of the same waters, and the frequent transformation of failure into success when patients are removed from home surroundings, or placed in specially trained and experienced hands.

But how seldom is any such sustained and systematic attempt made in everyday practice? The necessary result is that those physicians who make no such attempt fail to reap even anything like the regular crop of good results which they otherwise might obtain, whilst they leave entirely to others those exceptional harvests which astound the unenlightened, and make the fame and fortune of quacks. And this regrettable failure must continue so long as medical education continues to be conducted on lines that practically ignore the psychical factor, and so long as disease is arbitrarily divided into physical and psychical departments, to be treated in different places, by different people, in different ways.

It is thus coming to be seen that psychical means alone do not suffice for the treatment of those whose affliction we call mental. Hence the modern treatment of the acutely insane is in a thoroughly up-to-date hospital, with all the physical and scientific appliances that the term implies, and not in an asylum, which is the last development of the doctrine of detention and safe custody, Even in the ordinary wards of a general hospital, such as the Royal Melbourne. which has many drawbacks from this special point of view, some 30 cases of melancholia have recovered after an average treatment extending over four to six weeks, without certification to any asylum. In a suitable mental hospital even superior results would, no doubt, be attained. Similarly where there is inability in an asylum to provide individual and the desirable physical treatment, cases, of necessity, do less well than in private, where both are available. Thus, recently, a young man who was drifting towards dementia during his six months' asylum treatment, recovered within six weeks in a private establishment. And the same is found to apply, *mutatis mutandis*, to cases which are not acute. Hence the universal movement in favour of placing the feeble-minded, the epileptic, and the chronically insane in suitable farm and industrial colonies.

But a commoner error with the profession is that of ignoring the psychical factor in the diagnosis and treatment of everyday disease. Few, indeed, are the medical practitioners who daily prescribe suggestion, as well as diet, hygiene, and drugs. Yet the physician who makes even the minimum effort in this direction often does more for his patient than his more highly qualified *confrère* who makes none. To some, and they naturally the most successful, this endeavour comes without conscious search, and improves with experience; but in some measure it may be acquired by all, and no one who has become familiar with its powers will henceforward be content to remain without its constant aid.

Perhaps even more serious, however, than the therapeutic neglect is the diagnostic mistake. It is of almost everyday occurrence to find cases in which the psychical element predominates relegated to the category of serious and even incurable physical disease, with the usual prognosis. To give a few illustrations out of many within my own recent experience, I may mention the cases of a young woman treated for three months for chorea, yet cured by one application of the faradic brush; of a girl confined to bed for nine months and about to be operated upon for tumour of the brain, yet walking about well within a fortnight; of a boy sent from Tasmania for expert surgical treatment of his paralysis, yet walking within two days, after isolation and suggestion. I call to mind also a case of blepharospasm with extension to the arm and leg that was cured by bandaging the eyes for a week, though it had previously resisted all ordinary treatment for over 12 months; of a girl confined to bed for over two years and signed into the Austin Hospital as an incurable consumptive, yet up and walking within three months and well ever since; of a boy whose periodic vomiting was uncontrolled by medicine and diet for over a month, yet never returning after removal to hospital; and of various other neuro-mimetic affections of joints, muscles, organs, and functions too numerous to mention, which had defied long and varied physical treatment, but which yielded promptly and often instantly to an appropriate combination of the psychical and physical. Of course, I quote my own experience simply to illustrate the situation. It differs only in its phases from the similar experience of all others who have made an intelligent and scientific application of the same treatment.

But the recital may have the more important effect of directing professional attention to the number and variety of cases in which the psychical factor is overlooked and in which mental therapeusis is not attempted. For only a certain, perhaps small, proportion have the mistake rectified at the hands of the profession, whilst there can be no question that a very large number come within the scope of quacks, faith healers, Christian scientists, and the like. These illegitimate practitioners have, of course, no proper knowledge of the circumstances of the case, or of the limitations of treatment by suggestion. If quacks, they have, in addition, all the blindness of ignorance and the unscrupulousness of greed; if healers, their patients have to rely upon revelation instead of science, upon introspection instead of experience, and upon instinct instead of training. And yet, utilising the same potent curative agent, which the legitimate practitioner has neglected, and being further able to make, from their very ignorance, more extravagant promises and more insistent appeals, they unquestionably must produce, far more frequently perhaps than is generally admitted by the profession, many satisfactory results, and even many apparently astounding cures which discredit medicine whilst they spread quackery. The profession has apparently yet to see that equally exceptional results, and even better, would be well within its grasp if it would but recognise the real facts of the case. Meantime it is the apathy and neglect of so many medical men that is responsible for much of the success of quackery in general disease, just as it is also in the special department of sexual perversion, in which indeed the psychical factor is so often the one which demands attention.

I would, therefore, draw this necessarily brief, but I trust suggestive, paper to a close with an emphatic declaration of opinion, that whilst so many of the public are ignorant, credulous and misguided, and whilst quackery is fraught with such untold waste and such innumerable failures, the profession owes it not only to itself and to individual patients, but to the community at large, to lose no time in placing mental therapeutics amongst the essentials of its everyday treatment. And for its legitimate cultivation and systematic use there are required only a clear recognition of its limitations, absolute honesty in its application, and the unfailing observance of our ethical traditions.

(Read before the Australasian Medical Congress, Adelaide, September, 1905.)

CASE OF PAPILLOMA OF THE KIDNEY.

By A. A. Lendon, M.D. (Lond.), Lecturer on Obstetrics, University of Adelaide, with Pathological Notes by W. R. Cavenagh-Mainwaring, M.B. (Adel.), F.R.C.S. (Eng.), Lecturer on Pathology, University of Adelaide.

Mr. H., a pastoralist, was first discovered to have albuminuria in November, 1898; he was then 75 years of age, hearty and well in most other respects. The urine had a specific gravity of 1020; it was acid and free from sugar; in the slight sediment deposited, on standing, were seen, under the microscope, a few pus cells and some fine oxalate of lime crystals; the quantity of albumen was found to vary from a faint trace to a marked ring by Heller's test. On February 24th, 1899, blood was found in the urine for the first time, but in small amount; the smoky tint of the specimen suggesting a renal rather than vesical origin for it. The patient was noticed to be sallow-looking, but his weight was inclined to increase from its minimum of 9 st. 9 lb. (his usual weight being 10 st. 4 lb.). In the November of that year there was an attack of hæmaturia spread over several days; it was attributed by the patient to a severe bout of influenza; no pain accompanied the bleeding, nor was there any frequency of micturition; rest in bed did not seem to appreciably diminish it, but it appeared to be best controlled by the internal administration of turpentine in capsules. From this date the bleeding became of a fairly frequent occurrence; a mild attack lasting a couple of days and a severe one a couple of weeks perhaps. The intimate admixture of the blood with the urine, and the absence of clots, still supported the suggestion that it had a renal origin, and an endeavour was made by sounding the bladder to exclude the possibility of its being derived from that viscus. An interval between the attacks was chosen for that purpose, but nothing was detected, nor was any fresh hæmorrhage provoked. There was no renal enlargement nor tenderness. Sometimes in former years the patient had suffered from attacks of lumbago without hæmaturia, and now he often complained of a little pain with tenderness over the lower dorsal vertebral spines. In October, 1901, the correct diagnosis was thought to have been established, because the patient had a severe attack of left renal colic, which required hypodermic injections of morphine, and the continuous administration of chloroform for its relief. The bladder was again sounded after his recovery from the attack, but no stone found, so that it was assumed to have remained behind in the renal pelvis. This attack and its accompanying bleeding were supposed to have been precipitated by a ride on a rough horse on the previous day. The temperature was not raised, nor did the patient have a rigor.

When just 79 years of age Mr. H. had an attack of suppurative appendicitis, and after he had recovered from his operation he began to put on weight, and finally reached 10 st. 12 lb., a heavier weight than he had been for many a long year. In spite of his general and progressing weakness and the frequent hæmaturia, the weight had not materially decreased when he was last weighed in February, 1904.

In June, 1903, a correct pathological diagnosis became possible, because for the first time a piece of papillomatous growth was found amongst some blood-clots in the chamber. The renal colic two years previously further pointed to the passage of a piece of the growth down the ureter. Since that event, too, the bleeding had been observed to be much freer in character, and sometimes the passage of clots from the bladder gave rise to pain.

In May, 1904, an attack of bleeding more profuse than ever was followed by cystitis, with decomposition of the urine, and death ensued from exhaustion. A partial post-mortem examination was made, and the left kidney and the bladder were submitted to my colleague, Dr. Cavenagh-Mainwaring, for examination and report.

One remarkable feature about the case is this, that when in town the patient resided in a suburban street, where the only other cases of papilloma of the urinary organs which I have met during 22 years of practice in Adelaide also lived, one next door to him, and the other further up the street; both cases were reported in the transactions of the South Australian Branch of the British Medical Association (*Australasian Medical Gazette*, 1891, pp. 171 and 174, also 1894, p. 300.)

The question naturally arises as to whether an accurate diagnosis, anatomical and pathological, might not have been arrived at sooner. At the outset it may be said that the reported cases of this disease are but few, Dr. Drew in 1896 being only able to find records or specimens of eight instances. Again, neither Dr. Murchison nor Mr. Campbell de Morgan in 1869 diagnosed their cases during life, nor was Mr. Barker's case in 1896 detected even after a nephrotomy; Mr. Knowsley Thornton's was only found out after nephrectomy; on the other hand, Mr. Jones' case and Mr. Battle's were both diagnosed by means of an exploratory nephrotomy, followed in each case at a subsequent date by removal of the kidney.

But it may be said that with cystoscopes, urine segregators and X-rays we have advantages over the men of the nineteenth century. This is true, and all these means should have been employed had it been possible. But the patient was elderly and objected to manipulations; he experienced no pain except during the one attack of colic, and he argued that he was too old to be operated upon even if a stone had been found in the kidney. When the piece of growth was passed he was undoubtedly too weak for such a thing to be contemplated. In a younger man the cystoscope might, and probably would, have anticipated the discovery that the bladder was free from disease, and that the lesion was situated in the left kidney; the separator might, and probably would, have given us the same information. Private patients, however, and especially those who are elderly, cannot be treated quite in the same imperative manner as hospital inmates, greatly to their own disadvantage. An early diagnosis in such a case (had the patient been younger) would have been all-important; the kidney might have been removed, as was done successfully by Mr. Battle in a man of 53 years of age.

Pathological Notes by Dr. Cavenagh-Mainwaring.—The left kidney was increased to about one and a half times its normal size and consisted of two portions. The upper portion forming about two-thirds, was dilated into a thin walled sac with thin walls somewhat resembling the capsule of a hydatid, and about ¼-in. in thickness. Its interior was filled with a bloody mass of mixed fibrin and débris, and scattered over the inner surface were numerous shaggy masses of papillary growth infiltrating the wall of the sac at their base, the whole being divided by incomplete partitions into three saccules. The lower third comprised a single saccule, the walls of which were formed of healthy kidney substance enclosing a somewhat dilated pelvis, into which four flattened papillæ projected. The internal wall of this portion was smooth, except at one spot above where the cavity communicated with the sac of the upper portion, where was placed a single compound outgrowth similar in nature to those found above. The two portions were drained by separate ureters; the upper one was dilated and with thicker walls than the lower one, whilst scattered all the way down were numerous implantation papillomata. The lower one was somewhat smaller than normal with unthickened walls and a smooth lining. These ureters had been torn away below from their entrance into the bladder, so that it was impossible to tell whether they had a double entrance there or not, but it appeared more probable that they coalesced close to that viscus.

The bladder itself was somewhat thickened and contracted; its mucous membrane presented some general thickening and roughness, most marked in the neighbourhood of the opening for the left ureter, but the walls beneath presented no evidence of new growth. Posteriorly the bladder was adherent to the rectum by a thickened mass, apparently inflammatory in origin.

Microscopical sections through the wall of the upper dilated portion of the kidney showed that it was composed almost entirely of new growth, the proper kidney substance being represented only by a narrow fibrous stratum outside this. The growth itself showed externally an abundant fibrous stroma arranged in the form of alveoli, containing solid columns of cubical cells, resembling the glandular epithelium of the tubules, but more internally the alveolar structure became less marked, and the character of the cells became changed, in places becoming elongated and flattened, and somewhat resembling endothelium, and in others round or oval, with a general resemblance to sarcoma elements. When the actual relation of the stroma to the cells was carefully observed it was found that though the general appearance was an alveolar one, similar to that met with in carcinomata, still in nearly every instance the cells were not entirely separate and lying loose in the alveoli, but were at some point in intimate relation with its walls, at which point the stroma appeared to run into the mass of cells and to become developed directly into them.

From a pathological standpoint the most interesting question in this case is the nature of the growth, that is to say, whether it should be placed amongst the carcinomata or epithelial malignant neoplasms or amongst the sarcomata or mesoblastic malignant tumours. The kidney is apparently partly developed by an outgrowth from the Wolffian duct, which is sometimes double, and partly by the development of glomeruli and tubules in a portion of mesoblast known as the intermediate cell mass, the two portions subsequently becoming connected with one another.

The ureters, pelvis and collecting tubules are probably developed from the former (and when that is double there will be two ureters); the glomeruli, convoluted tubules and rest of the kidney from the latter; embryologists differ as to the exact origin of the Wolffian duct. It appears at a very early period of development as a thickening growing on the one hand in connection with the intermediate cell mass and with the epiblast on the other. This thickening soon obtains a lumen and grows down along and at the expense of the epiblast to open posteriorly into the cloaca.

According to some this tube is derived primarily from mesoblast, whilst others think it is derived from epiblast, and becomes connected with the intermediate cell mass secondarily. Under the first theory the epithelium of the pelvis, ureters and collecting tubules of the kidney would have a mesoblastic origin; under the second, an epiblastic one. This difference of opinion gives a special interest to the morphological study of the epithelioid tumours of the kidney, as possibly throwing some light upon the disputed question.

A carcinoma may be roughly described as an abnormal proliferation of epithelium in some part of the body, which is atypical in nature and situation and of unknown causation, and a sarcoma as a similar overgrowth of the connective tissue, the tendency of the new-formed tissue being to revert to the embryonic form and to become cellular, rather than fully formed. In the carcinomata the stroma is not affected primarily, though a secondary irritative overgrowth may occur. The epithelial cells are the intrinsic and distinguishing features of the growth, and groups of these cells are found in close approximation with the intervening connective tissue, the groups lying in, but separate from, spaces in the connective tissue known as alveoli, the walls of which may, however, become infiltrated with the epithelial elements at a later period. The blood vessels formed in connection with such tumours have fully formed connective tissue walls and are only infiltrated secondarily.

In the sarcomata, on the other hand, the cells are directly derived from the connective tissue that forms the stroma of the neoplasm, and consequently the individual cells have a much closer relation with that stroma, and even when the alveolar structure of a carcinoma is closely imitated do not lie free in the alveoli, but are in places in intimate relation with their walls. The same tendency to reversion to the embryonic form is seen in the walls of the blood vessels, and these are consequently frequently actually composed of tumour substance, and the cells composing it gain a ready and early access to the blood stream, more especially the thin-walled veins. Consequently, metastasis and secondary growths in carcinomata are frequently through the blood stream, especially to the lungs, whereas the carcinomata have to wait till they have penetrated into the vascular system before becoming disseminated; and as the lymph vascular system has the closest relations to the elements of the tissues, the path of dissemination is more frequently through these than through the blood vessels, though the latter may occur. The general opinion of pathologists as to the nature of these growths has varied from time to time. Previous to the work of Waldeyer the accepted opinion was that they arose by the proliferation of the connective tissue elements of the part; but since his researches the opinion has been widely accepted that they originated primarily from an abnormal proliferation of the epithelium. In a very able and interesting paper on the subject, delivered at the Brisbane Congress by Professor Allen and Dr. Cherry, the earlier view was upheld, and the histological features of this case are, I think, distinctly in support of the views expressed by them.

The first impression received on examining sections of the growth under the microscope is that it corresponds to the carcinomatous type of tumour, but on closer examination it is seen that though the cells be in definite alveoli and free from the stroma wall in a large part of their circumference, still, generally, they are in contact with it in some part, and at that spot fibrous prolongations extend from the stroma wall into the midst of the cell masses, and are so intimately related to them that in many instances the cells seem to be developed directly out of the stroma. The type of cell varies considerably in different situations, and all gradations can be observed between those typically epithelioid down to those resembling ordinary sarcoma elements. The structure of the blood vessels inclines towards that met with in sarcomata, and in places the walls are composed of cells similar to those met with in the tumour proper.

The question of secondary growths was not settled at the autopsy, but it is an established fact that in similar tumours these frequently occur by the medium of the blood stream rather than the lymphatics, thus conforming to the sarcomatous rather than to the carcinomatous type of tumour; and, on the whole, it is my opinion it is in the former class rather than in the latter that such growths should be included. The condition of double and two separate portions of the kidney is an interesting one; and the extensive involvement of the upper portion and its ureter, and practical freedom of the lower portion, points strongly to the probability that whatever be the causation of malignant growths, whether parasitic or a reversion to a germinal condition of the tissue, local conditions play an important part in the actual site of the growth.

(Read before the South Australian Branch of the British Medical Association.)

REFERENCES:

Australasian Medical Gazette, 1891, pages 171 and 174.
Australasian Medical Gazette, 1894, page 300.
Path. Soc. Trans., vols. xxi. and xlviii.
Clin. Soc. Trans., vol. xxviii.
Trans. Intercolonial Med. Congress, Dunedin, 1896.

THE TREATMENT OF URIC ACID CONDITIONS BY HAIG'S DIET.

By A. W. G. Cribbe, L.R.C.P., M.R.C.S.,
Orange, N.S.W.

THE undoubted fact that errors in diet are responsible, directly or indirectly, for the majority of the diseases we are called upon to treat in general practice has never been realised by either the leaders or the rank and file of the profession. To-night I propose to refer to Haig's neglected and scoffed-at theories on uric acid as a factor in disease. Having done so, I will give my own experience of this diet in the treatment of disease and some opinions of others who have given it a trial.

Haig's attention was drawn to this subject by his own ailments. He suffered intensely and persistently from acute migraine headaches. He found that no medicinal treatment prevented or cured them. He then tried diet, giving up flesh foods, meat soups, tea, coffee and cocoa, wine and beer, replacing them by milk and cheese. This practically cured him. A further study of migraine brought out such a strong relationship to gout that he suspected uric acid might cause migraine. This disease is accompanied by slow, high-tension pulse, cold surface and extremities, mental depression, and weakness; the urine is scanty and high-coloured, with a high excretion of uric acid. He found that by taking alkalies freely he produced an increased excretion of uric acid in the urine; by taking acids he lessened the excretion. Alkalinising the blood rendered the uric acid stored in the blood more soluble; acidifying the blood drove it out of the blood into the joints, muscles and fibrous tissues. An excess of uric acid in the blood produces contraction and obstruction of the arterioles and capillaries. This increases pulse tension, slows the heart, and cools the surface, thus influencing the circulation in the brain, skin and kidneys, and reproducing the conditions met with in migraine. Haig says that the uric acid excreted in the urine is formed either by nitrogenous foods or vegetable alkaloids chemically allied to uric acid. The latter are introduced into the body by taking flesh foods, meat soups, fish, poultry, eggs, tea, coffee and cocoa in varying proportions. The vegetable alkaloids produce the same symptoms as uric acid. He found that normally in the urine thirty-five grains of urea are excreted to one grain of uric acid. By increasing the alkalinity of the blood the uric acid in the tissues is more freely dissolved and the proportion of uric acid to urea excreted rises; by acidifying the blood the uric acid excretion is lessened. There are diurnal variations in the excretion of uric acid in everyone. In the morning the alkalinity of the blood is high and the excretion of uric acid high also. This produces increased pulse tension and decrease of urinary water. At night, from 10 p.m. to 2 a.m., the acidity of the blood rises, with lessened excretion of uric acid. This frees the blood tension and produces free excretion of urinary water with a higher proportion of urea. From 2 a.m. to 7 a.m. the acidity is at its lowest ebb. There is a low urea, high uric acid, low urinary water, and high blood pressure. This constitutes the uric acid theory. Haig has demonstrated it by thousands of experiments on blood and urine. Taking annual fluctuations, he found that in winter uric acid is stored up in the tissues. In the summer when the alkalinity of the blood is higher, from a lighter diet and free perspiration, the excretion is higher. Certain drugs increase excretion and others lessen it. The former comprise the alkalies, salicylic acid and its compounds, phosphate of soda, piperazidin, quinine and belladonna. The alkalies act as before described by alkalinising the blood. Salicylates are not good solvents when the alkalinity of the blood and urine are high, so they should not be combined with the alkaline salts. Phosphate of soda can only act in an alkaline medium, or while the supply of alkalies is abundant. Piperazidin is not a powerful excretant, and its action is somewhat uncertain. Quinine increases excretion. Haig believes that it does this by contracting the spleen, which is a reservoir for uric acid. Belladonna acts indirectly by raising the blood pressure, slowing the heart, and diminishing the flow of urine. The substances which diminish the excretion of uric acid are acids, iron, lead, mercury, silver, copper, zinc, lithia, salts of calcium, opium, iodide, antipyrin, ammonium, the nitrites and hyposulphites. These substances act either by increasing the acidity of the blood, such as acids, nitrites, hyposulphites, etc., or by forming insoluble urates in the body, such as lead, mercury, iron, etc. Lithia has been considered a solvent of uric acid. This is so in the test tube. In the body it forms an insoluble triple phosphate with the triple phosphates of ammonia and soda found in the fluids of the body. Opium raises acidity at first by slowing peristalsis and increasing absorption of nitrogen and acids from the intestines. Antipyrin, nitrites and hyposulphites all increase the acidity of the blood. The members of this group which are chemically allied to it are xanthin, kreatin, hypoxanthin, kreatinin, glycocoll, thein, caffein, theobromine, and the vegetable alkaloids.

Uric Acid and Metabolism.—The presence of uric acid in the blood has a great effect on metabolism. Headaches, fits, mental depression and irritability represent the effects of high intra-cranial blood pressure. The asthma of gout and Bright's disease is explained by urates in the blood. A weak heart may be able to do its work with free capillaries, but be utterly unable to cope with the obstructed capillaries and high tension pulse of uricacidæmia. In menstruation the excretion of uric acid rises during and just after the period. This excessive excretion explains many of the symptoms experienced at this time, such as headache, mental depression, irritability, fits, and skin eruptions.

Increased Blood Pressure.—Urates in the blood may be classified into spherical or colloid urate and the needle or acid urate. The colloid urate contains more alkali than the other. In a state of hyper-acidity it becomes suspended and crystallised. This may block the capillaries of the skin, producing Raynaud's disease; cause intra-cranial tension as in headache, vertigo and epilepsy; and may bring on glaucoma from intra-ocular pressure. A milk or vegetarian diet always reduces the blood pressure. All drugs that clear the blood and urine of uric acid do the same. No other satisfactory explanation has been given of the limitation of Raynaud's disease to the surface and extremities. Anything that clears the blood of uric acid and at the same time lowers the blood tension may set up gout in a joint or fibrous tissue, providing there is already an excess of uric acid in the tissues. Many severe cases of migraine have cleared up on the supervention of an attack of gout.

Epilepsy, Convulsions and Hysteria.—A great deal of experimental work has been done on epilepsy by dieting. It is found that just before an epileptic fit the proportion of uric acid to urea drops to 1-50. This is accompanied by a feeling of happiness and mental brilliancy. Directly after and during the fit the excretion of uric acid rises enormously, 1-15 or 20; subsequently it returns to normal level on recovery. In this respect epilepsy exactly resembles migraine. Haig records numerous instances of epileptics cured by a strict diet of vegetables and milk. The younger patients and the less severe cases are especially amenable. In many cases there is such intensely high blood pressure that the pulse is lost during the fit. A lady suffering from gout took an overdose of strong alkaline water; this liberated so much uric acid into the blood that she had a very severe epileptic fit a few hours after, the first she had ever suffered from. The frequency of convulsions in bottle-fed infants is probably due to the excess of casein in the cow's milk.

Asthma, Bronchitis and Catarrh.—Uric acid by obstructing the capillaries and diminishing all the excretions affects the lungs also, and produces in them hyperæmia. This throws a light on the causation of chronic bronchitis and its frequent association with chronic Bright's disease and high tension pulse. The relationship of asthma to the early morning hours is the history of the uric acid cycle, from a free circulation in the evening to the obstruction of the alkaline wave of the early hours of the morning. The relation of asthma to dyspepsia is well known, also its relation to gout. Severe asthma is frequently followed by an attack of gout. The late Sir Andrew Clarke said that as a young man he had to choose between gout and phthisis; he chose the former. He devoured large quantities of animal food. This produced high acidity, blood clear of uric acid, and free pulmonary circulation; but he had gout because he stored up large quantities of uric acid. Iodides act on asthma by clearing the blood of uric acid and reducing blood pressure and the congestion. The indications here for treatment of these conditions are, firstly diet, then iodides, followed by salicylates. A medical friend of mine suffered severely from catarrhs and rheumatism for some years. He adopted Haig's diet and was completely relieved. He writes:—"It certainly improved my health wonderfully. Before I commenced it I weighed 10 st. 7 lb., and looked thin and haggard. Within three months everyone noticed a great change for the better. I went up to nearly 12 st. in weight, and lost a lot of troubles such as rheumatism, sciatica, nasal catarrh, boils, herpes labialis, and an old-standing pain in my right kidney which had on several occasions blocked my ureter, to be followed when it gave way by pus and blood. I think it must have been calculus, but I could never find any stone. I kept to the diet for ten years, and have never felt so well before or since. I was very much surprised at the amount of physical exertion one is capable of on this diet. I did all my practice on the bike in those days, and thought nothing of 50 to 80 miles a day when doing my work." In my own case I, too, am liable to severe catarrhs. Whenever one threatens I take 15-grain doses of salicylate and eat numerous oranges. This treatment is always successful and aborts the catarrh.

The Alimentary System.—Haig says that where there is excess of urates in the blood there is scanty saliva, bile and gastric fluids. The secretions of the whole alimentary tract are blocked. This, if true, accounts for bilious attacks, with gastric and intestinal putrefaction. Salicylates when swallowed in conditions of health will reappear in the urine in seven minutes. Taken in bilious attacks, epilepsy and such disorders, there will frequently be no reaction for several hours. When there is much uric acid in the intestines, mercury, lead, and those drugs which produce insoluble urates will cause severe pain, often resembling appendicitis. In these cases substitute salicylates for calomel and the patient will soon be well. Many cases of typhilitis may be quickly cleared up in this way. Sir A. Garrod recognises gout as a frequent cause of appendicitis and enteritis. In lead colic the blood pressure rises and the urine is scanty. The insoluble urate is deposited in the intestines and gives rise to the colic.

Raynaud's Disease.—Raynaud attributed the local asphyxia and symmetrical gangrene to a spasmodic contraction of the capillary vessels. He, however, gave no satisfactory explanation of the phenomenon. Haig quotes several cases in which the proportion of uric acid to urea, and the excretion, were very high. He cured them by a strict diet in nearly every case. In hæmoglobinuria there is enormous excretion of uric acid, and proportion in blood down to 1 in 8 of urea. When the attacks subside the acidity rises rapidly. He ascribes these diseases to obstruction of the capillaries by the colloid urates. Cases of symmetrical gangrene in young subjects present the same uric acid conditions. Haig points out that Raynaud's disease is paroxysmal and temporary. Raynaud himself considered that the symptoms could not be caused by arteritis. In anæmia and hæmoglobinuria Haig says that excess of uric acid causes destruction of red cells. He quotes numerous cases in which iron did no good until the diet was altered and salicylate was administered. His experiments demonstrate that the blood decimal rises and falls in direct proportion to the amount of uric acid in the blood. Those cases of anæmia which do not improve on iron probably require a uric acid free diet with salicylates. To test for urates, he adds to a drop of blood on a cover-glass, a small drop of a 10 per cent. solution of soda carbonate, also the same amount of a 20 per cent. solution of ammon. chlor. Granular urates are formed, which can be plainly distinguished and counted by a medium lens. The granules are more numerous in the alkaline tide of the morning than at night. In the case of a patient suffering from chronic Bright's disease and gout, the number was enormous. Fevers lower the alkalinity of the blood, and lead to storage of uric acid. This leads after the temperature has fallen to increased excretion with great depression. The anæmia of rheumatism is due to the excess of uric acid. Many cases of anæmia can be cured by the uric acid free diet alone without iron.

Albuminuria and Bright's Disease.—Many sufferers from migraine develop Bright's disease if left alone. The high arterial pressure, changes in blood, diminished formation of urea, and defective metabolism, if allowed to continue, often end in Bright's disease. The early symptoms of this disease, cold extremities, gastric catarrh, bronchitis, headache, mental depression, and weakness are the symptoms of chronic uracidæmia. The clinical picture of commencing uræmia is that of severe migraine, headache, giddiness, drowsiness, slow high tension pulse, and cold skin. There is a large amount of uric acid in the blood during these attacks. In the later stages where the heart is damaged and the kidneys contracted there is nothing to be done. Taken early, a strict diet may avert the fatal issue. Cases of albuminuria in pregnancy should be kept on Haig's diet strictly; in fact every pregnant woman will benefit by it.

Glycosuria and Diabetes.—Sir A. Garrod noted the connection between gout and diabetes. He records cases where chronic gout disappeared on the supervention of diabetes. Then the diabetes was checked and the gout returned. Sir W. Roberts also notes the connection. Professor Latham describes a form of diabetes accompanied by an excess of uric acid in the urine and pains in joints and limbs. Dr. Anderson remarks that many clinical facts show that gout and diabetes are different forms of the same diathesis. Sir S. Wilks, Sir W. Roberts, Professors Saunby and Pavy all note the hepatic congestion in diabetes. This may be caused by general high tension due to uric acid, which, therefore, is responsible for the glycosuria. The connection between uric acid and diabetes seems evident from the fact that acids and mineral waters containing sulphates and salicylates are very useful in glycosuria, and they also clear the blood, liver, and other organs of uric acid. Haig considers that many cases which become comatose are poisoned by the pure meat diet on which they are placed. He orders a milk diet with gluten, and gives salicylates with an occasional dose of calomel or opium.

Gout.—The effect of highly acid wines, such as port and champagne, on gouty joints is well known. This is produced, as before noted, by driving the uric acid out of the blood into the joints. The process is assisted by the feeble vascular supply to the joints and the higher acidity of their structures. In gouty attacks the pain increases at night during the higher acidity wave, and relaxes in the morning with the alkaline wave. Gout is much worse in winter than in summer, thus following the higher acidity wave with storage of uric acid in the tissues. This applies also to lumbago and sciatica. In the coldest weather they are most common. To produce gout in a subject who has much uric acid in the blood and tissues, give alkalies freely to bring the uric acid into the blood, and then administer one of the drugs which interfere with its solubility and drive it into the joints. Metals such as lead and mercury precipitate gout. Sir A. Garrod has shown that gout is more common in plumbers and painters than anyone else, and he points out that mercurial vapours induce pains in the joints resembling rheumatism and neuralgia. The origin of the pure meat diet in gout is that it is a stimulant to nutrition and clears the blood of uric acid, starting active metabolism. So long as the stimulation continues the patient feels well and bright; but the time comes when the stimulant fails. Age, overwork, or exhaustion produce alkalinity and liberate the uric acid, with disastrous and sometimes fatal results. Wines and beers cause acidity and produce gout. Whisky contains little or no acid and affects acidity but little.

Rheumatism. — Haig believes that the arthritis is due to the irritant action of uric acid on the fibrous tissues of the joints. No satisfactory explanation of the action of alkalies taken internally, alkaline baths, milk diet, and salicylates can be given on the microbic theory. On the other hand, the solubility of uric acid and the processes of elimination will explain it all. He accounts for the absence of uric acid in the blood in acute rheumatism by saying that there is a general rise in the acidity of the blood which drives the uric acid into the tissues. As soon as the alkalinity rises, the urates in the joints are taken up by the blood and passed through the kidney. Uric acid affects especially the fibrous tissues. This is the case in endo- and peri-carditis, where the fibrous tissue is abundant. In the light of recent researches it cannot be denied that many of these cases are microbic. It does not, however, follow that the exciting cause is not the uric acid irritant which provides a suitable medium for the germ process. These remarks on Haig's theories are taken from his text-book on uric acid. I believe that his theory is sound, although some of the explanations and details seem to be contradictory. Every one who works for years on one subject as Haig has done is liable to become a monomaniac on that subject. Making allowances for this, no one can afford to ignore such monumental work done on a subject of such vast importance.

The first case in which I used this diet was that of a patient who had suffered from uric acid symptoms for many years, in whom all medicinal treatment was a failure, and who was completely cured by adopting the uric acid free diet as recommended by Haig.

Family History.—Strong rheumatic and gouty tendencies on the mother's side. Father was bilious and always had cystin crystals in the urine, which are due to defective liver metabolism.

Previous History.—Has suffered from severe bilious headaches, irregular bowels, and cystin urine from childhood. The cystin produced at times great vesical irritability almost amounting to incontinence. He had lumbago first at 18, which lasted three weeks, and has frequently recurred since then. For the last four years it has come on in the spring and autumn regularly, or whenever violent exercise is taken, such as digging in the garden. For thirteen years he has had seborrhœic eczema of scalp, said by a Sydney specialist to be parasitic; this has been treated by strong antiseptics such as lotio hydrag. biniodide 1 in 8, without much success. A year ago he contracted a painful nodule on the right ear, which became enlarged and swollen, so that he could not sleep on that side. For some years past he has had two painful soft corns between the great and second toes that no treatment seems to benefit. On taking violent or prolonged exercise he has anorexia, thirst, insomnia, rapid pulse, thick urine, and mental depression. He has also an enlarged meta-tarso phalangeal joint which frequently swells and becomes painful.

Habits.—Regular always. Is a moderate meat eater and does not take strong tea. He is almost a total abstainer, as he finds that beer or wines disagree with him. The treatment previously adopted for these ailments, which, though not serious, yet made up a sum-total of considerable discomfort, was chiefly medicinal. Salicylates, aspirin, colchisal, colchicum, salines, lithia, and such like drugs, with oil of winter-green rubbed in locally, were all tried at different times, with only temporary benefit. At a later stage they seemed to do the patient very little good, and produced disturbances of digestion. Under these circumstances, as a last resource, I put the patient on Haig's diet, which was commenced November 1st, 1903.

The results were remarkable. The eczema disappeared almost immediately; in fact, there has been no application made to the scalp since the diet was started. The lumbago has not returned except on one occasion in the early spring. This was due to his eating too freely of cheese during the winter and taking very little exercise. The cystin trouble is absent so long as the strict diet is adhered to.

The bowels have become quite regular, and bilious headaches are a thing of the past. There is no reaction or muscular stiffness after taking violent exercise, as before, however unaccustomed the exercise may be. The last symptoms to subside were the painful corns and the nodular thickened ear. It was 12 months before they were quite well. This supports Haig's statement that it takes one year of this diet to eliminate the uric acid entirely from the system. Since he commenced it the patient has experimented at different times on the diet by returning to one or other of the forbidden foods or drinks. He finds, however, that to be a success it must be adhered to in its entirety.

The Diet.—This, I must admit, to the ordinary man as he lives nowadays is rather a formidable undertaking, owing to the omission of nearly everything that he likes best. No meat, meat soups, eggs, poultry, fish, and not very much sugar; no condiments, such as pepper, mustard, vinegar, sauces; no alcoholic drinks, tea, coffee, or cocoa. The diet consists of all grain foods, including bread, oat and wheat meals, rice, macaroni, etc.; all vegetables excepting mushrooms, lentils, asparagus, and broad beans. These exceptions are again the most tasty and favourite vegetables. All sorts of fruits are allowed, also milk, butter and cheese. For drinks, milk and water, lemon drinks in hot weather, and for cold weather barley coffee is an efficient substitute for tea and coffee. This is prepared by roasting and grinding husked barley in exactly the same way as the coffee bean is treated. The barley dissolves very well, and makes a most nourishing as well as a pleasant beverage. A small proportion of coffee beans (2 oz. to the lb. of barley) greatly improves the flavour. The question of drinks is not so important as would at first appear, because the vegetarian drinks less than the meat eater, and is seldom thirsty even in the hottest weather. The nutritional values of these foods are of importance and should be explained to the patient. Haig says that you require 1200 to 1600 grains of albumin daily. In my experience this estimate is altogether excessive. Few people, except navvies or working miners, require more than 1000 grains daily.

Roughly, the percentage values are these: Cheese, 33 per cent. (1 oz. equals 160 grains); wheat and oats, 16 per cent. (1 oz. equals 75 grains); nut foods, 19 per cent. (1 oz. equals 96 grains; macaroni, 15 per cent. (1 oz. equals 70 grains); milk, 3 per cent. (one pint equals 300 grains); rice, 5 per cent., according to its quality. Fruits are valuable chiefly as laxatives, solvents and digestives. They should be taken at the end of a meal, not at the beginning. It is not necessary to calculate minutely how much albumin you consume at each meal, if you have these percentages in your mind and eat accordingly. It is quite as nutritious as the other, but is far less stimulating, and the appetite is not so keen. One is able to go eight or nine hours without a meal without feeling any discomfort or faintness. There is less temptation to eat to excess. For this reason many vegetarians have two meals a day only, at 9 a.m. and 4 p.m. Any other meal consists of fruit only. Cheese, which disagrees with so many people on meat diet, becomes almost a necessity to the active, hardworking vegetarian. It is usually eaten at breakfast, and may be made up in various ways with rice, macaroni, etc. The diet may be made attractive by good cooking and accessories, such as salads, olives, varieties of cheese, honey, and a good supply and variety of bottled fruits for the winter months. Tinned nut foods, made up with vegetables and green herbs, are very nutritious and palatable. I have tried this diet on a number of cases lately, and I think it is indicated in all uric acid diseases, such as rheumatism, gout, lumbago and sciatica, also in fermentative dyspepsia, constipation, biliousness, sluggish liver, renal irritation, appendicitis, obesity, and albuminuria. I have used it in all these cases with good results. In cases of anæmia, with dyspepsia and constipation, I always combine it with the administration of iron, with the best results. Vegetarian races suffer very little from appendicitis. It is suggestive in this connection that there is far less indol in the motions of the vegetarian than in that of the meat eater. A young man who had his appendix removed some months previously had very offensive flatulence from mouth and anus, which was most distressing to himself and all around him. Intestinal antiseptics having failed, he tried the strict diet, which cured him in three weeks without any further medicinal treatment. You get the same result in cases of gastric fermentation and dilatation. The figures given by the *British Medical Journal* of February 18th point to the immunity of the Japanese soldiers from enteric fever and dysentery, and the large proportions of recoveries when attacked. On the other hand, among the meat-eating Russians, there were 50,000 sick at Harbin at one time, most of them cases of dysentery and enteric. Roger Williams states that there is an extraordinary disparity in the mortality rates for cancer between meat-eating and vegetarian races. The explanation given is that there is less likely to be a local irritation and growth of cell tissue when the blood is free of uric acid than when it is full of it. Certainly most of the cases of cancer of throat, lips, mouth, jaws, etc., that I have seen have been in plethoric individuals of the over-fed, bull-necked type. I have treated several cases of obesity with good results. Fat people are supposed to be small eaters; as a matter of fact they are generally free livers who could live on a quarter of what they eat, but are not aware of the fact. I omit butter, sugar and oil from their diet. The food being unstimulating, they do not crave for so much when they get used to it and their stomach has contracted. Some boiled rice and skim-milk, followed by fruit, is an ample first meal for the obese. The second meal may consist of vegetables, a made dish with cheese, and fruit as before. I have reduced a man three stones in a few months by a diet of this sort. As a rule, however, I find they are too fond of good living, and have not the patience to endure until the craving for stimulating foods departs.

This diet is unsuited to cases where the elimination is perfect, and a stimulating diet is necessary. Anæmic girls of this type, cases of phthisis, cardiac cases, neurasthenics, convalescents from fevers or exhausting diseases of all sorts, undoubtedly do better on a flesh diet providing their elimination is unimpaired.

In conclusion, let me say that I only present my experiences with the idea of drawing attention to a question of first importance which was neglected and ignored by teachers in my student days, and even now is regarded by the majority of our profession and the public alike as the happy hunting ground of faddists and religious cranks. I am content if my remarks bring this subject into greater prominence than heretofore.

(Read before the New South Wales Branch of the British Medical Association.)

NOTES ON THE DIAGNOSIS OF SOME OF THE COMMONER INFLAMMATIONS OF THE EYE.

By G. Affleck Scott, M.B., Ch.M. (Edin.), Ballarat.

OUR time may perhaps not be altogether wasted in considering the question of the diagnosis of some of the simple inflammations of the eye which are met with in ordinary everyday practice. You will pardon the commonplace and sometimes elementary nature of the remarks on account of the importance of the subject, for the value of the eyesight can hardly be over-estimated; and it frequently happens that its maintenance or destruction depends upon a correct diagnosis being made in an attack of inflammation. We still too frequently see, although not so often as formerly, the sad spectacle of a child condemned to total blindness for life because a nurse or chemist mistook for a cold in the eye an attack of ophthalmia neonatorum. And, again, the common difficulty of distinguishing between iritis, conjunctivitis and glaucoma cannot be permitted to be solved by waiting for symptoms, for delay means not only danger, but damage or disaster. I have lately seen a series of cases where the patients have been condemned to the permanent defect of firm iritic adhesions because the chemist thought the cases were blight, whereas atropine applied in time would have of course prevented the evil; and, on the other hand, the use of atropine in doubtful cases may be worse than its avoidance, for the treatment of incipient glaucoma with atropine under the diagnosis of iritis is a fatal mistake. You remember the canon, "never use atropine till you have excluded glaucoma," and this warning is often doubly needful, for the absence of plus tension does not always negative glaucoma.

I wish my words could reach all the chemists, for the public when its eye is inflamed goes to the chemist for "eye-water," as when its eye has anything else the matter with it it goes to the optician for glasses. And the treatment of corneal abrasions by lead lotion, of iritis by sulphate of zinc, and of glaucoma by atropine alike spell bad times for the patients.

Passing over the inflammations of the eyelids, where the difficulty of diagnosis is comparatively small, we find that the main divisions, where difficulty is apt to arise, are the inflammations of the conjunctiva, the cornea, the iris, the sclerotic and the ciliary region.

The first diagnostic symptom that presents itself is photophobia; either the mother explains that the child "can't a-bear the light," or the child (or adult for that matter) opens the mouth instead of the eyes when trying to do the latter; and, simple as the point is, it is yet a valuable aid to diagnosis, for intolerance of light is always slight, and often absent, in cases of conjunctivitis even if severe; and in nearly all cases where it is present it indicates something more than simple inflammation of the conjunctiva. Also photophobia is generally marked in iritis, and much less frequent in glaucoma; so that photophobia, as a rule, indicates trouble in cornea or iris.

Then, still before examining the eye, it is useful to find out the character of the pain, although, from the unreliability of patients' statements, this information is less valuable than it would be could we get accurate description.

In conjunctivitis the pain is usually slight, often absent; the patient often complains of acute burning feeling (sometimes calling it pain), often of severe itching, and very often of feeling of grit or sand in the eye—the well-known "sandy blight" feeling; but acute pain, like acute photophobia, is seldom complained of, and that is to be expected, for the lax tissue of the conjunctiva allows of a high degree of inflammatory exudation without much consequent pressure on the nerve-filaments producing pain. As regards the character of the pain: In iritis and scleritis the pain is somewhat similar, the latter being more local and generally less severe, though some forms of iritis, remember, are almost painless. It is often difficult to distinguish between the pain of iritis and that of glaucoma. The iritic pain radiates from the ball of the eye to the brow, the temple, the cheek, and nose—it is a sort of overflow from the eyeball to the area of distribution of the supra-orbital and infra-orbital branches of the fifth cranial nerve; while the pain in glaucoma is generally more extended—to the forehead, the temple, the side of the head and occiput, sometimes down the arm of the same side, and it very frequently goes down the side of the nose. One point about the pain of iritis is that it very frequently indeed is complained of as most severe just at the supra-orbital notch, where the nerve passes through.

On movement of the eyes the pain is more marked in iritis than in glaucoma, and here, although we are not including optic neuritis in our consideration, it is worth mentioning that the pain in retro-bulbar neuritis increases much more markedly when the eye is moved in one or both lateral directions than when the eye is moved upwards or obliquely, and that sometimes enables us to make a differential diagnosis between retro-bulbar neuritis and glaucoma.

The next point is the tenderness of the eye to pressure, which is comparatively slight in glaucoma, extremely acute in retro-bulbar neuritis, and well marked in iritis and cyclitis ; in the latter case by accurate pressure made gently through the lids you can often elicit tenderness over the whole area of the ciliary region.

Then we come to the examination of the eye. And the first and fundamental point is to note the appearance of the redness. The conjunctival vessels, which are barely seen in health, are very numerous ; they are derived, you remember, from the palpebral and lachrymal arteries, and come through the fornix at the outer and inner canthus, pass forward, and branch off into minute divisions which spread out and embrace the cornea. And this arrangement explains the typical appearance of conjunctival congestion; the almost startlingly angry look of the caruncle, canthus and plica semilunaris ; the tree-trunk size of the congested vessels near the canthus and the gradual branch-like lessening of the congestion as the cornea is approached till the redness sometimes clears away altogether towards the cornea, leaving a pale zone about a fifth of an inch wide surrounding the corneal margin. We seldom get so typical and easy a diagnosis, however, as the terminal anastomoses of these vessels take place round the edge of the cornea, and generally show congestion also, but it is always very much less marked than further from the corneal edge.

"Circumcorneal" or "ciliary" congestion, on the other hand, is due to the enlargement of the small episcleral branches of the anterior ciliary arteries, which come up through the rectus muscles and run a short course along the subconjunctival surface in the zone immediately surrounding the cornea. So that in, say, iritis we see (even without, though better with, a magnifying glass) a closely-packed series of little parallel twigs forming a zone of deep congestion round the cornea from 3 to 7 millimetres wide, which fades as it recedes from the cornea—the opposite, that is, of the conjunctival congestion. The second point to notice is the colour of the congestion. The conjunctival vessels, being in delicate tissue and superficial, show more of the straw colour of the blood which we see in microscopical examination, and the resulting general colour is anything from a yellowish-red to a brick-red, whereas the deeper ciliary congestion does not show the yellowish tint, but looks rose-pink, or bluish-red, or lilac-red, or sometimes crushed raspberry colour. This difference of colour is perhaps as distinctive as the distribution of the congestion. And the third point is that the conjunctival vessels move freely over the subjacent sclerotic and are easily emptied by gentle pressure, while the ciliary vessels are, of course, immovable and do not empty on pressure.

The next point to remember is that even a slight wound of the cornea is often with surprising rapidity followed by a well-marked zone of circumcorneal congestion. It, however, is not so deeply angry-looking as the zone in acute iritis ; and sometimes a 5-millimetre zone of moderate circumcorneal redness, with photophobia, a clear conjunctiva and normal iris makes you pretty safe in diagnosing a corneal wound, although you at first sight fail to detect anything wrong with the cornea.

Then the next point in diagnosis is the examination of the cornea. Firstly, if photophobia does not prevent it, we get good information from facing the patient towards the light, making him watch our finger moving in all directions and noting the reflection of the window-bars on the surface of the cornea. Localised distortion of a clear corneal image indicates probably an old facet ; indistinctness of the image at any spot generally indicates recent inflammatory area, and you may sometimes diagnose the cause of the circumcorneal congestion from such an appearance. In cases, however, where photophobia is present, the cornea must be carefully examined by reflected light from a good lamp ; only never separate a child's eyes forcibly with the fingers, for the least pressure may sometimes be the last straw in a threatening corneal perforation. Better spend time and patience in getting the child to open its eye, and, if forcible examination be necessary, it is better done carefully with a lid elevator with the child's head resting between your knees and held perfectly still.

The various forms of keratitis are comparatively easily recognised, only we must remember that the so-called "punctate keratitis," with spots upon the posterior lamina of the cornea (recognised by careful oblique illumination) and the so-called "Descemetitis" are often, perhaps usually, cases of cyclitis, and not keratitis.

Before leaving the cornea, we remember that a steamy look of the cornea, as if it had been breathed upon, may differentiate between glaucoma and iritis, for in iritis the cornea is clear. And if, in addition, we find anæsthetic portions of the cornea as well as the steamy appearance, the diagnosis of glaucoma is practically made. Then, again, there is often great likeness between the early stage of parenchymatous or interstitial keratitis and glaucoma; the former, however, is accompanied by the ciliary congestion, which spreads first over the upper part of the corneal surface, whereas the glaucomatous haze has no corneal congestion and is more evenly spread over the whole corneal surface. And, lastly, the difference between the vascular advance of interstitial keratitis and of pannus is shown by an examination of the lids for trachoma.

As regards the sclera, there is little difficulty. An episcleritis shows the nodular patches of thickened episcleral tissue; while in scleritis we have the same thickening of the scleral tissue, only more diffuse.

The next point is to examine the iris. In conjunctivitis and keratitis the iris is unaffected. In iritis and glaucoma it is one of the chief factors in diagnosis. As a rule it is contracted in iritis and dilated in glaucoma; it is often also dilated in retro-bulbar neuritis; but the dilatation in glaucoma is generally greater towards the upper than the lower semicircle, and is rather elliptical than round. In both cases there is probably no reaction to light.

But almost more than the size of the pupil, I rely upon the colour of the iris. The size of the pupil depends upon interference with the innervation of the iris, and may be brought about in various ways; but the alteration in colour of the iris depends upon the effect of stasis and exudation in the iris itself, and it begins early. Assuming, of course, that the eyes are homo-chromatic (and difference in ground-colour are rare), and you find a blue iris on sound side with a greeny colour on the affected side, or a grey iris on sound side with reddy look of its fellow, or a brown iris on healthy side with muddy appearance of the other, and in all cases a dull look instead of the clear, healthy iris colour—then you have great help to diagnosing iritis. Remember that the presence of glaucoma may also cause a dull appearance, due to our looking at the iris through the steamy cornea referred to, but a little care will show that it is the cornea and not the condition of the iris which is responsible for the dull look.

And then we come to the matter of the tension. In glaucoma the tension is always at some time or other increased, but not necessarily so at the moment of our testing it, so that the simple absence of plus tension at our examination does not justify the instillation of atropine. But in iritis, while the tension is usually normal or minus, it is occasionally increased, while in cyclitis (which from the course of the ciliary vessels, you remember, almost necessarily implies iritis as well) you have variations of tension sometimes diagnostic of cyclitis. So that you may sometimes have plus tension in a case of cyclitis requiring atropine or normal tension in a case of glaucoma where atropine is fatal. In such cases, repeated observation and testing of tension with careful consideration of other symptoms are necessary.

And, lastly, there are the well-known and, to the initiated patient or the doctor, ominous "rainbows"; round a candle flame the patient sees a rainbow, more or less well marked, with the red colour always on the outside border and the violet on the inner. This is so frequently present in glaucoma as to be often diagnostic of itself. But even here we must remember that, since the appearance of the rainbows is due to the secondary disturbance of the corneal epithelium, it is not directly the result of the intraocular tension; and, as a matter of fact, the rainbows sometimes occur in some cases of conjunctivitis, etc. Still, they are very valuable as aids to diagnosis.

I am not attempting to touch in detail the various forms of inflammation of cornea or iris, but only looking at the broad features in each where the diagnosis is confused and the treatment different; and perhaps a few minutes spent in summarising the symptoms of the various classes of inflammations may not be amiss.

1. *Conjunctivitis.*—Take, as example, the simple catarrhal form. Abnormal mucus, or muco-purulent, secretion; roughness and

dark-redness of caruncle and fornix, with deep congestion near the fornix, paling as it approaches the cornea; colour of congestion rather brick-red or yellow-red, and vessels movable over the sclera; film of mucus on cornea, with occasional rainbows, probably disappearing if patient wipes the eye; burning, itchy, or gritty feeling, but little photophobia or pain or blepharospasm. And here, without entering upon the varieties of the inflammations of the conjunctiva, I would just make reference to the frequent confusion of follicular conjunctivitis with trachoma. The two complaints are often mixed up and both put down as "granulations" or "granular lids," and one often sees a case diagnosed and prognosed as trachoma which is simply follicular conjunctivitis. In each case a mass of small granules is seen, but that is not sufficient for a diagnosis of trachoma. In follicular conjunctivitis the granules, however entirely they may cover the lid, are small and transparent, and run in rows parallel to the lid-border, while the trachoma granules are much larger (often twice the size), confluent instead of discrete, and have a greater partiality for the upper lid, whereas the simple follicles are more frequently met with on the lower retro-tarsal folds. The follicular condition almost never shows drooping of the lid, while trachoma is usually accompanied by some ptosis. The follicular affection has almost no hypertrophy of the conjunctiva, nor implication of the tarsus, nor pannus, nor any structural alteration; whereas trachoma is accompanied or followed by some or all of these conditions.

2. *Cornea.*—Take interstitial keratitis as the type, as the various ulcerations of the cornea and hypopion are easily diagnosed. In parenchymatous keratitis you have the faint advancing grey haze, with its slight ciliary congestion, creeping round the periphery of the cornea, and slowly and gradually pushing out its rays over the surface, till the whole cornea is a dense hazy injected mass. The patients (or, rather, the patients' parents, for the disease mostly occurs in children) will seldom let you watch the case up to this stage; for after some weeks' treatment with no checking of the steady, relentless advance of the disease, even the patients who honestly honoured you with their confidence at first, conclude that their friends were right, and that you have "not rightly understood the case," and, just as the disease approaches the turning point towards recovery, remove the patient to someone else, whose treatment they find begins to cure the child within a few days. But severe though the disease is, and alarmingly blind though the patient becomes during its progress (it usually attacks both eyes) it is yet astonishing how satisfactory the recovery often is, the cornea regaining almost entire transparency. The all-important point in diagnosis is to be able to exclude glaucoma, for, as the iris is very frequently implicated in the inflammation, it is absolutely necessary to have atropine instilled early, and sometimes continuously for weeks. Without the atropine an occluded or excluded pupil ruins the child's sight, which the corneal recovery would have allowed to be almost fully restored. In children it is sometimes necessary to give chloroform simply for the purpose of testing and examining the eye.

And lastly, a summary of iritis and glaucoma. In iritis you have the circumcorneal congestion—the deep rose-pink zone encircling the cornea; the conjunctive clear; pain in the eye-ball, radiating from the ball to brow and temple; pain much increased on exposure of the eye to light; altered colour, with dull, muddy look of the iris; almost always a contracted pupil, due to the enlargement of the iris substance from the early exudation, and also, I think, due to reflex contraction of the sphincter pupillæ; tension usually slightly diminished, but sometimes normal.

Glaucoma has generally the history of the prodromal symptoms—headache, foggy vision, or rainbows, and, at the time of the attack, wider distribution of the pain than in iritis, engorgement of the anterior ciliary veins, and sometimes œdema of the lids; steamy appearance of the cornea, also generally localised corneal anæsthesia, probably due to pressure on the nerve filaments in the wonderful structure called the anterior limiting membrane between the corneal epithelium and cornea proper. Then we have the shallowness of the anterior chamber, not from enlargement of the iris substance, but from the iris being pushed forward by the retro-ciliary pressure; then the (usually elliptically) dilated pupil with normal colour of iris.

Then another point is that the vision is much impaired, whereas in iritis the vision is better than you would expect if the patient will make the attempt to see. The visual field in glaucoma I shall not refer to, as that requires skilled perimetrical observation. And, lastly, the tension is always at some time, and generally at all times, increased, and very often markedly so. In testing tension it is well to have the head of the patient steadied and the gaze directed to some definite object on the floor in front. Simply telling a patient to look down means usually that they close their eyes, which makes the tension estimation more difficult, and then they often look up, which makes it impossible.

And the last point in the diagnosis that I shall refer to is the use of homatropine. Cocain is no use as a diagnostic in inflammatory affections, as it does not dilate the pupil sufficiently to show what is required. Atropine is of course entirely inadmissible, but homatropine may with care be used with advantage. It is quite true that it sometimes increases, or induces, an attack of glaucoma, and therefore should be very seldom indeed employed, and then only after all possible methods have been carefully and vainly used. But in cases where the differential diagnosis is impossible I have had sometimes recourse to its use. If the iris reacts evenly to the drug and you find the iris edge clear and free of all exudation, and the tension of the eye beginning to increase, then the case is not the iritis you suspected, but the glaucoma you feared, and your application of the homatropine has increased your patient's danger. But even then you may generally counteract, without actual harm being done, the action of the homatropine by using eserine in full strength; the eserine, while it would not of course counteract atropine, sometimes quickly neutralises the effect of homatropine. And if, as fortunately in the majority of such cases we have found follow, you see the pupil dilating irregularly with little threads of exudation or commencing adhesions showing themselves, or perhaps you find the ace of clubs' pupil, which shows an already well advanced iritis with synechiæ, then you treat actively with atropine without hesitation. Should, even then, the tension rise, and you find you have to deal with a case of iritis plus glaucoma in the same eye, then you have got beyond the question of differential diagnosis, and have landed in one of the most difficult dilemmas in the whole range of ophthalmology, viz., the treatment of combined glaucoma and iritis.

(Read before the Ballarat Branch of the British Medical Association.)

APPENDICITIS FROM THE POINT OF VIEW OF THE GENERAL PRACTITIONER.

By R. E. Shuter, M.D., Ch.B., Beechworth, Victoria.

The subject of appendicitis is one which has been brought prominently before the public and the profession of late years, and one round which an immense amount of discussion in medical circles has centred; but I think most will agree with me that the importance of the disease, its frequency, and the value of the lives to the community of those most frequently affected, viz., the adolescent and adult in the prime of life, from an economical standpoint, justify all the attention that has been paid to it, and should prompt to still further effort to define our attitude as a profession towards this condition. In an examination of the literature which I have been able to obtain I have not found any purely medical treatise on the subject; the surgical aspect is set forth by various authorities in almost every journal which one takes up. It is, of course, advisable that we should be familiar with the latest conclusions of the leading surgeons; there are, however, various considerations and modifying influences which we should recognise exist in general practice, and which, in my opinion, warrant us in examining the subject from the point of view of the general practitioner, more especially the country general practitioner, and in trying to define our present attitude towards the disease. Briefly, I think you will all admit that a general practitioner sees a different class of case to that which comes under the notice of a consulting or hospital surgeon; that he sees many cases which never come under the latter's observation at all and which get well with purely medical measures; that the large majority of cases which are sent to the hospital or to which the surgeon is called as a consultant are already considered by the general practitioner as eminently or doubtfully surgical; and that a treatment which may prove to be the best among the perfect surgical surroundings of a metropolitan hospital and in the hands of a practised surgeon, who has plenty of skilled assistance, may not be the best in the less favourable surroundings of a country house and in the hands of men who are less frequently called upon to resort to surgical measures. Again, in criticising the fiat of the surgeons, we must acknowledge that the natural trend of their mind is towards resort to operation in all doubtful cases, with a frequent and sometimes unreasoning distrust in the efficacy of medical measures. I am, therefore, of opinion that definite rules as to the treatment of appendicitis, albeit subject at all times to modification by individual skill and judgment, will only be laid down when the consensus of the individual opinions of members of the medical profession as a whole becomes crystallised; and it is my purpose this evening to try and define the present attitude of myself—a general practitioner—on this question and to submit it to your criticism. By statistics alone no definite conclusion can be reached. Up to a certain point they are of value; in some directions the statistics are so uniformly similar that they can be accepted without demur; in others, in which there is a wide difference, by striking an average one is able to provide a fairly just basis for argument. To render my remarks more definite and to aid discussion, I will formulate the alternatives of treatment that are offered to us under the following headings, viz.:—

1. Immediate operation, that is within 24 hours of the commencement of the attack, in all cases of appendicitis.

2. Operation, if there is no definite subsidence of symptoms after three days, or during the acute attack apart from cases in which urgent symptoms of gangrene, generalised peritonitis, or abscess formation occur, which we admit must be operated upon.

3. Medical treatment until the doctor decides that surgical intervention is necessary to save life, with appendicectomy in the quiescent period, preferably after one severe, always after a second, attack.

1. Immediate operation, *i.e.*, within 24 hours of the commencement of the attack, in all cases of appendicitis. (*a*) In relation to this method of procedure I say, initially, that, as a general practitioner, I have met with many cases, more particularly among children, which, whatever my suspicions may have been, I could not definitely diagnose as appendicitis within 24 hours of the onset of symptoms; indeed, I may say that the number of cases in which I have been able in 24 hours to diagnose appendicitis with sufficient certainty to enable me to insist upon an immediate operation, accompanied as it must be with hurried and incomplete preparation, unfavourable environment, and tragical upsetting of the household, is exceedingly few. (*b*) The death rate with operation at this time, in competent hands and under favourable surroundings, has been given by Mr. Barnard as 1 in 20; Jacobson states his opinion that it is not less than 8 per cent. (*c*) I think it quite likely that if every case of appendicitis were submitted to operation by a skilled surgeon within 24 hours of the onset of the disease, the results might equal, if not excel, any other method of treatment. My objection to it as a routine treatment for the general practitioner is that it is impossible. It is impossible to diagnose every case with certainty in the first 24 hours; it is impossible to see every case in the first 24 hours; and it is impossible to persuade the public that an immediate and severe operation is necessary, and, after all, the public may be right.

2. Operation, if there is no definite subsidence of symptoms after three days or during the acute attack, apart from cases in which urgent symptoms of gangrene, generalised peritonitis, or abscess formation occur. This procedure is, I know, advocated by many leading men, and is, I think, favourably regarded in Australia; it is to some extent a compromise, and, personally, I think it worse than either of the extremes. (*a*) Let us briefly consider the various forms in which appendicitis manifests itself. To quote Osler's definition, it may be due to: (1) Fæcal concretion; (2) foreign body; (3) a catarrhal or obliterative process; (4) an ulcerative process; (5) an acute infective process. Is it reasonable to suppose that a definite time limit for the subsidence of the disease will obtain in all these widely different conditions? (*b*) Operation after the first 24 hours and during the acute attack is attended with a very serious though varying death rate, which, from an examination of a number of statistics, may, I think, be safely stated as not less than 15 per cent., or 1 in 6⅔. (*c*) A large majority of cases which show no improvement in three days get perfectly well with medical treatment only. (*d*) Operation at this time, in addition to its immediate danger, in a certain number of cases, results in ventral hernia, due to protrusion of the scar or failure to remove the appendix, necessitating further operation.

3. Medical treatment until it is decided that surgical intervention is necessary to save life with appendicectomy in the quiescent period, preferably after one severe, always after a definite second, attack.

This is the method of treatment which I believe to be the best from a general practitioner's standpoint, and I shall proceed to give my reasons for advocating it; at the same time, in passing, I shall direct criticisms against the alternative methods presented to us. My own experiences in reference to appendicitis are these:—In 10 years I have attended, on these lines, over 20 cases without a death, and have operated on six of them. I saw one case, in consultation, which died. The patient was an orphan in an out-of-the-way place; he had no proper nursing, was only seen occasionally by his doctor, and operation, though advised in the case, was refused, so I don't consider the result in this case of value one way or the other. At the Ovens District Hospital during the last five years 19 cases of appendicitis have been treated in this way—13 medically and six surgically; of the 13 medical cases all recovered; of the six surgical, one—an operation for generalised peritonitis performed immediately on admission—died. Of the six cases operated on by me, in two abscesses were evacuated, one by vaginal incision 14 days, and one by lumbar incision 16 days after the onset of symptoms; in one, 17 days after the acute attack, a diseased appendix was enucleated from the centre of a mass of localised plastic peritonitis; there was no pus formation. In one case, attacked six weeks after the acute attack, a concretion was found accompanied by plastic peritonitis; in one operation, four weeks after the acute attack, the appendix was adherent by its apex constricting a portion of the cæcum; and in one performed during the quiescent period, in a case which had been relapsing for four years, the appendix was partially stenosed and thickened. In this latter case, although the history of the primary attack gave a period of four months' invalidism, and the patient had had several relapses, there were no adhesions found at the operation, and the peritoneum was remarkably healthy.

I have seen several operations in the quiescent period, and I have been struck with the absence of adhesions or alteration in the normal appearance of the peritoneal membrane, showing to my mind how thoroughly the local structures can resume their normal condition after an attack of appendicitis. Perfect recovery from definite severe attacks of appendicitis has resulted in a majority of cases, and relapse has not occurred in a large number of the cases which have been under my observation from one to four years. In this connection I may say that Dr. Hawkins gives as his experience of cases treated at St. Thomas's Hospital that one-third of the cases relapsed within a period of three to five years. I am inclined to think, considering how thoroughly the part regains its normal condition, that if a case has not relapsed within five years we may assume the patient is in almost as safe a position as one in whom the disease has never manifested itself. Some of my cases from which a good recovery has resulted without surgical intervention would be regarded now probably as distinctly surgical by a consulting surgeon. I am not going to justify at length my statement that cases which have had one severe and, more particularly, two attacks should be operated upon in the quiescent interval. I believe all will agree with me in this. Let us consider it in this way, and here statistics can help us. All the authorities I have examined agree that the mortality in this operation is not above 1 per cent., sometimes as low as .2 per cent. Assuming that at least one case in three of appendicitis relapses and by any method of treatment one in twenty die, there seems to be still a considerable margin in favour of this procedure. Now, let me state shortly a few further points bearing on this question which we as general practitioners must bear in mind. However anxious we may be to adhere strictly to scientific rules in our treatment of the patient, there are influences which must modify our attitude to the several cases, nor can the question of expediency be entirely eliminated. The treatment which might be the best for a patient lying amid the perfect surroundings of a ward in a metropolitan hospital is not necessarily the best in the case of one laid up in a country town or a bush hut. It is no disgrace to ourselves to acknowledge that in this particular, viz., operation for appendicitis, the country practitioner is not as skilful as a hospital surgeon; skilled assistance is frequently not available, skilled nursing is not procurable, and moreover death after operation is in certain circles a tragedy from which the relations take long to recover and which may seriously affect a doctor's reputation and practice (an important matter for himself), or weaken the confidence of his patients in him, an equally serious matter for the welfare of the public of his district. Understand I do not argue that expediency should be considered where there is a definite wrong or a right way; but if we wish to be honest, I say that it should and must be considered by the general practitioner in his attitude towards appendicitis at the present time, the best rules of treatment being, to say the best of it, so exceedingly indefinite and disputable. Having, then, advocated a waiting policy in the treatment of appendicitis, I will be asked what symptoms, or group of symptoms, I would regard as indicating operative interference.

It is to me a most difficult thing to lay down hard and fast rules in this connection which would apply to all cases. Every case must be judged on its individual merits. It may not be exactly a scientific attitude, but I am one who believes in the value of individual intuition as to the progress of the case. A consultant is of great value to confirm one's opinion and share responsibility, but it is the constant medical attendant, the man who has watched the case daily, who is best able to give a true prognosis.

1. Apart from definite clinical symptoms, the general conditions of our patient is undoubtedly of great value. The facies, decubitus and mental condition, especially any sudden change in the latter, are points of great importance.

2. An ominous symptom is a continuance of vomiting, in spite of complete rest to the stomach, to which I will refer later on in treatment.

3. A steadily high or increasing pulse rate is, to my mind, the surest evidence that the inflammation is not subsiding.

The value of the temperature as a guide to treatment in appendicitis is, in my opinion, not great, and often very deceptive; and in this connection I may remark that the rectal temperature is the most trustworthy. In all severe illness the patients are, for the time, mouth breathers. In order to get in the mouth a true record of the body temperature, it is necessary that these persons should keep the mouth, with the contained thermometer, tightly closed for at least ten minutes, and you will find it very difficult to get them to do this. I have found a rectal temperature as high as 103° in a case of appendicitis in which the recorded temperature in the mouth was given as a little above normal. If the pulse, however, remains persistently above normal, after an attack of appendicitis, even with a normal temperature and satisfactory local condition, I never feel that the patient is really convalescent.

4. The presence of cutaneous hyperæsthesia, as distinct from deep pain on pressure, indicates that the peritoneum is invaded, and similarly an extension of the hyperæsthesia an extension of peritonitis. From personal experience I can recommend this sign as of value in determining the progress of a case. Pain on micturition indicates an extension of the inflammation to the pelvic peritoneum.

5. A sudden cessation of existing pain, without improvement in the general state of the patient, is quoted by authorities as of extreme and urgent importance, indicating as it does gangrene or rupture of the appendix and the necessity of immediate operation, more particularly if occurring within the first 24 hours of the attack, as at that time the general peritoneal cavity is not shut off, but is exposed to the full effect of the infection.

Medical Treatment.—I will now say a few words on the general lines of medical treatment which I adopt. At one time I used the salicylates, bearing in mind the glandular nature of the appendix, the frequent onset of appendicitis after a definite chill, and on the assumption that there was a rheumatic element present, the results were not sufficiently definite to induce me to continue their use. I have in the past given an initial dose of calomel or castor oil, and continued with frequent small doses of mag. sulph. and tr. belladonna, on the assumption that the attack depended largely on constipation, and that the cæcum was primarily at fault. I now believe such treatment to be distinctly wrong and harmful, and that it is practically certain that the appendix is the organ primarily at fault. In the way of drugs I now depend upon a simple carminative, such as aqua calcis with tr. card. co. as a placebo, with liq. bismuthi et ammonii citratis and ac. hydrocyan dil. to check vomiting; or, what I think a very good plan, dram doses of the liquid peptonoids or similar preparation every four hours to take the place of a medicine. The large intestine should always be emptied by one or two large enemata of oil, turpentine and soap and water, thereby inducing relaxation of the ileo-cæcal valve and escape of the fluid contents of the small intestine without undue peristalsis.

The most important element in treatment I believe to be rectal feeding. There are three reasons why I believe feeding per os in this disease to be inadmissible: (1) The digestive and assimilative power of the stomach is very weak, and quite unfit to assimilate sufficient nourishment to keep up the strength of the patient; (2) it is most important that as little waste matter as possible should pass into the small intestine; (3) peristalsis of the small intestine should be kept in abeyance as much as possible. Regular, fully digested enemata of eggs and milk or some form of beef essence, to which a little salt is added, with daily washing out of the rectum with boracic acid solution, is a very efficient and sufficient method of tiding a patient over six or ten days of an acute attack of appendicitis, and has an almost incalculable influence in the satisfactory progress of the case. With a four-ounce indiarubber bottle enema syringe this treatment can be carried out by anybody, either in a child or adult, with the greatest facility. In children who may insist upon having something to drink, I am in the habit of giving by the mouth small quantities of albumen water, sweetened with sugar of milk.

I wish, gentlemen, in conclusion to sum up my remarks on appendicitis by making the following definite statements:—1. I accept the appendix, as the *fons et origo mali* in all true cases of appendicitis. 2. An attack of appendicitis is due to bacillary infection of an appendix which has become susceptible to infection owing to retained secretion or lowered vitality caused by obstruction of its orifice by catarrhal swelling of its lining membrane or the valve of Gerlach, retained concretion, or a twisting or kink in its lumen; *ergo*, the ideal treatment is to remove the appendix before further infection occurs 3. The danger of this proceeding in unfavourable surroundings, the impossibility of seeing or attacking all cases while the disease is confined to the appendix, the fact that a large number of cases seen by the general practitioner prove to be mild catarrhal cases, and that with proper medical treatment from the outset even a large number of severe cases get well, have convinced me that as a routine treatment for the general practitioner immediate operation is inadvisable.

The experiences of some of my hearers will doubtless differ from mine in reference to this disease—you will note that I have not had a case of fulminating appendicitis in my practice—and necessarily their opinions will be modified by their experiences and may differ from mine. I shall be prepared to modify my practice if my future experiences point to such a necessity. I have endeavoured, however, in this paper to set forth the attitude which my experiences so far have led me to adopt. I have endeavoured also to be truthful and honest—truthful as to facts in relating the results of my cases, honest in the conclusions which I have formed, quite apart from any attempt to harmonise my opinions with those of well-known authorities, and regarding rather the welfare of the patient in the hands of a general practitioner than the necessity of acting in conformity with scientific or theoretical teaching.

(Read before the Border Medical Association.)

ADDISON'S DISEASE IN A YOUTH.

By R. E. Weigall, M.B., Elsternwick, Victoria.

In August, 1903, M.B., a youth, 18 years of age, was brought to me by his mother, in a fainting condition. He was gasping for breath, and sank into a chair exhausted. He had walked half a mile, with repeated rests, with the greatest of difficulty. His pulse was uncountable, and respiration very rapid. His mother explained to me that three months previously he was a healthy boy; that he now suffered from diarrhœa, not constant, fainting on any exertion, and a feeling of suffocation. He ate and slept well.

Over the forehead were large pigmented patches. The sclerotics had that peculiar pearly whiteness so characteristic of Addison's disease. There was an intense anæmia and marked wasting. I diagnosed the case at once, and informed the mother that it was Addison's disease that her son was suffering from. She appeared to fully realise the position, as she told me that the boy's father had died of the same disease after some years of illness. Apart from suffering from a carbuncle in the month previous, he had had no illness. I persuaded the mother to send her son into a private hospital.

On Admission.—Pulse, 140, very compressible; heart very feeble; respirations, at rest, 30; tongue red, inclined to become dry; skin generally pigmented, but patches particularly well marked on the forehead. Complained of nothing but extreme fatigue, and quite content to be left perfectly quiet in bed. Weight on admission, 6 st. 4 lb. Diet ordered, 2 qts. of fresh milk and strong broths and coffee with milk.

For the first few days he was given hypodermic injections of strychnine and normal saline injection into the bowel. At the same time I began the administration of extr. suprarenal cap., in the form of tablets, beginning with one three times a day, and soon increased to two three times a day. The improvement was extraordinary. He brightened up marvellously, and his condition of apathy changed to one of bright intelligence. He thoroughly enjoyed his treatment, and in two weeks had gained 6 lb. in weight; his pulse had fallen to 110, and he was able to move about the room without any difficulty. The pigmentation much less marked. He continued the treatment, taking in all 500 tabloids. His weight now is 10st. 8lb. He is working with a mate on a farm, and is out from daylight to dark, and feels perfectly well. The pigmentation has entirely disappeared.

(Read before the Victorian Branch of the British Medical Association.)

REVIEWS AND NOTICES OF BOOKS.

Saunders' Pocket Medical Formulary. Seventh edition, revised and enlarged. By Wm. M. Powell, M.D. Philadelphia and London: W. B. Saunders and Co. Melbourne: James Little. 1905. Price, 8s 6d.

In this edition many obsolete formulæ have been omitted and more than 460 new ones have been added. The appendix contains a posological table, formulæ, and doses for hypodermic medication, poisons and their antidotes; diameters of the female pelvis and fœtal head, obstetrical table, diet list for various diseases, materials and drugs used in antiseptic surgery, treatment of asphyxia from drowning, surgical remembrancer, tables of incompatibles, eruptive fevers, weights and measures, etc. The new formulæ introduced have been selected from the writings of the best authorities, introducing a considerable number of the more important recently discovered drugs. This is a very handy and useful little book.

Appleton's Medical Dictionary. An illustrated Dictionary of Medicine and Allied Subjects. Edited by Frank P. Foster, M.D. New York and London: D. Appleton & Co. Melbourne: Heyne and Co., Elizabeth-street. 1904. Price, £2 10s.

This volume, consisting of 1991 pages, contains the derivation, accentuation, and definition of terms used throughout the entire field of medical science. It is in no sense a compilation, but is the result of an extensive course of independent reading by the editor and his collaborators. The volume is of a handy size. Individual diseases and surgical operations are fully described, and the pharmaceutical articles present all new remedies, proprietary as well as official. In the derivation of words care has been taken to economise space as far as is consistent with clearness—hence, if a number of words of substantially the same origin occur in regular sequence the derivation is often given under only one of them. With regard to orthography, the substituting of the termination -ic for -ical, dispensing with the final e as in -ine and -ide, and suppressing diphthongs, is not followed. A scheme of pronunciation, adopted for its simplicity and intelligibility, is to be found at the end of the vocabulary. The book is freely illustrated in the text and by inserted plates, many of which are original. As is so essential in a work of this character, accuracy, arrangement and comprehensiveness have been aimed at in the preparation of this volume, and it is confidently predicted that the users of the dictionary will find it a reliable aid to their reading.

Electro-Static Modes of Application, Therapeutics, and the Uses of the Rœntgen Ray. By William Benham Snow, M.D., Professor of Electro-Therapeutics and Radiotherapy in the New York School of Physical Therapeutics; editor of the "Journal of Advanced Therapeutics," and late instructor in Electro-Therapeutics in the New York Post Graduate School, etc. Third edition, revised and enlarged, containing 100 illustrations, including ten full-page half tones showing the various methods of posturing and treating conditions. Price, cloth bound, 12s. A. L. Chatterton & Co., 97-99 Reade-street, New York. 1904.

In the preface to this the third edition of his work, the author states that the short time since the publication of the last edition has created so few changes in methods that this one is essentially the same, except for a few alterations in definition and expression, together with the substitution of some cuts for others, showing recent progress in apparatus. The contents are arranged in three sections. Section I deals with Electro-Static Modes of Application and Therapeutics. Seventeen chapters are devoted to this, and the apparatus is fully described and diseases mentioned which are amenable to this form of treatment. Many successful cases, too, are mentioned which have come under the personal observation of the author. To use Dr. Snow's own definition, "induced normal activity" defines the physiological effects of Franklinism, properly applied. Though admitting that many neurologists are correct when they consider the static modalities as "suggestive therapeutic placebos," the author claims still more for them. The opening words of chapter 10 will bear repetition: "The patient who comes for the first static treatment in this age when criminals are electrocuted, citizens killed by live wires, and buildings burned because of poor insulation, is usually in a state of trepidation, and the numbers who do not come, for the same reason, are legion. Impostors, quacks, and charlatans have made electricity a bye-word. It has become a subject of jest with the specialist and family physician, who, as a rule, know little about its use. The patient is therefore terrorised, prejudiced, and sceptical before he comes for treatment." Whilst fully concurring with these views regarding electrical treatment, let us add to the list even many medical men themselves, who by their frivolous application of the "high frequency" currents in particular as a panacea for all ills are helping to make electricity a bye-word, and so discount greatly any good points which such treatment may possess. Section II is devoted to Skiagraphy, and includes chapters on the uses of the X-ray in skiagraphy, general considerations of the Rœntgen ray, X-ray apparatus, the method of making skiagraphs, and dependent features and practical skiagraphy. Radiotherapy occupies Section III. Individual idiosyncracies and conservatism serve as an introduction to the physiological effects of the Rœntgen ray. "The stimulating or tonic effect" of the Rœntgen ray which all observers note in many cases is accounted for by Dr. Snow as being due to the disposition of the vibratory influences of the rays to first overcome local stasis, restoring tone to the muscular coats of the arterioles, and at the same time inducing a more active local metabolism. This is a most feasible theory, and probably correct. Next, the general principles of radiotherapy are touched upon, followed by chapters on the treatment of the forms of sarcoma and carcinoma, the X-ray, and accessory measures in affections of the skin, concluding with an account of X-ray treatment of conditions characterised by disturbances of metabolism.

This work will not be sought after so much in England and the colonies as in America, where static electricity is all the vogue. Nevertheless, it tersely depicts the subject, and with the numerous well-executed illustrations gives one a very fair *resumé* of this form of treatment.

The second part, dealing with the Rœntgen ray, does not enter into the subject nearly as fully as do several other textbooks; nevertheless, what there is is concise and up to date. To those interested we can recommend it as a very readable work.

OPERATIVE SURGERY. By Joseph D. Bryant, M.D. Vol. I and II. New York and London: D. Appleton & Co. Melbourne: Heyne & Co. 1905. Price, £2 5s net.

This is the fourth edition of Bryant's well-known work on operative surgery. It is published in two volumes of over 700 pages each; at the same time the writing is in most instances terse and to the point. It is well arranged, well and fully illustrated, and contains a very complete summary of all modern operative work. The chapter on appendicitis appears to be somewhat lacking, but, after all, many will probably agree with its teaching. The book is, without doubt, one of the very best of its kind.

POISONOUS PLANTS OF ALL COUNTRIES, WITH THE ACTIVE CHEMICAL PRINCIPLES WHICH THEY CONTAIN, AND THE TOXIC SYMPTOMS PRODUCED BY EACH GROUP. By A. Bernhard Smith, late House Surgeon, King's College Hospital, etc. Bristol: John Wright & Co. London: Simkin, Marshall, Hamilton, Kent & Co., Ltd. 1905. Price, 2s 6d net.

This little work is of an essentially elementary nature and evidently does not aim at great scientific detail, *e.g.*, the nomenclature of the toxic principles is restricted to but one leading substance, and the name chosen is, moreover, not always the most familiar one. Under the circumstances, is it worth mentioning them at all? The vernacular names are given with a most unusual and desirable fulness, and the short descriptions of the plants would probably help one in recognising the source of the poisoning, and hence in deciding on suitable treatment. Although considerable literary revision would be needed in case of a new edition it is probable that this *brochure* will be of use to a large class, more particularly of lay readers, who may have to treat cases of poisoning by plants in any part of the globe, where a physician is not near at hand and where more pretentious treatises are not available, if indeed they give the information desired.

CANCER AND ITS TREATMENT. By A. W. Mayo Robson D.Sc., F.R.C.S. (Eng.). London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 3s 6d.

This little book, which is a reprint of the Bradshaw lecture, delivered in Royal College of Surgeons in December, 1904, by Mr. Mayo Robson, and published in the *British Journal* directly afterwards, is a plea for the necessity of the early recognition of cancer. The author maintains that, with the exception of rodent ulcer, so far as our present knowledge is concerned, the only hope of cure in malignant disease lies in early diagnosis and complete removal. He also recommends excision not only of growths that are definitely cancerous, but of certain pathological conditions he terms precancerous. He says also that very probably every cancer, internal or external, has originally a precancerous condition. These latter conclusions were called in question by several at the time, and notably by Mr. Roger Williams, who asserted that they were absolutely untenable.

MODERN MATERIA AND THERAPEUTICS. By A. A. Stephens, A.M., M.D. Third edition, entirely rewritten. Philadelphia, New York and London: W. B. Saunders & Co. 1903. Melbourne: James Little. Price, 14s 6d.

The author seems to have well attained his aim at giving a concise and comprehensive account of the most important drugs and methods of treatment. He is specially to be congratulated on his reference to the most recent additions to the medical armamentarium, and as compared with many other works of the kind the descriptions in that in question are well proportioned.

The last section of the treatise is devoted to applied therapeutics, and is quite up to the standard of those preceding it; but seeing that this subject is of necessity discussed in "Treatises upon Medicine," it might fairly be questioned whether the space occupied might not be better employed in expanding some of the previous articles, especially, excellent as they are, those on remedial measures other than drugs. On the whole, we can thoroughly recommend this work to the busy practitioner.

THE EXTRA PHARMACOPŒIA of MARTINDALE AND WESTCOTT. Revised by W. H. Martindale, Ph.D., F.C.S., and W. Wynn Westcott, M.B. (London), D.Ph. Eleventh edition. London: H. K. Lewis, 136 Gower-street. 9s 6d.

This little work, a mine of information of such a varied and yet useful nature, surely needs no criticism. From the appearance of the first edition it has filled a place quite unique in the library of the physician. As usual there is so much that is new in this last issue that the practitioner who has not it at hand runs the risk of finding himself decidedly out of touch with recent therapeutic progress.

The secretary of the Albury Hospital has received a donation of £60 from the Indian residents of the town and district.

In connection with the recent street collection in aid of the Adelaide Children's Hospital the total receipts amounted to £591 14s 3d.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH OCTOBER, 1905.

THE CONDUCT OF MEDICAL CONGRESSES.

WHATEVER results may accrue from the labours of the committee appointed at the last meeting of the Australasian Medical Congress at Adelaide to consider the organisation of the medical profession in Australasia. it is certain that no alteration in the constitution of the Congress can take place for some years to come, and it is well that the experience of the past should be taken into account in arranging for the next Congress at Melbourne in 1908. A resolution was passed suggesting that the executive committee should bring up some standing orders for the conduct of the business of the Congress; and as the executive committee will probably be shortly appointed and be getting to work. some suggested amendments for the conduct of the scientific and business proceedings may be offered.

With regard to the scientific work of these gatherings, it was felt at Adelaide, as on previous occasions, that some alteration in the method of procedure might be adopted with advantage. Either there should be a reduction in the number of sections, or else provision should be made to avoid the clashing of meetings of the different sections, and more time should be allowed for the work of the sections. The majority of members who attend the meetings are interested in the work of more than one section, but if these are all meeting at the same time it is impossible for members to attend and hear any special papers or discussions they may wish to. We would suggest, therefore, that the number of sections be reduced rather than increased, and the work might well be done by six sections—namely, Medicine, Surgery, Midwifery and Gynæcology, Eye, Ear, Nose and Throat, Public Health, and Medical Ethics. Moreover, not more than two of these should meet simultaneously, and as far as possible it should be arranged that those which do meet at the same time should be those which are least likely to clash with one another. Provision might be made for the sections to meet on alternate days, or at different times of the day, say one in the morning and another in the afternoon, and the subjects for discussion should be limited to two or three. It is impossible to deal satisfactorily with a large number of papers in any one section on a variety of subjects. Some two or three should be selected, and a good discussion arranged on these. Unless some such arrangement is made in the future the scientific work will be unsatisfactory to the majority of members present.

But another, and perhaps even more important, alteration should be made in the arrangements for the general meetings of the Congress. It is at these that resolutions are passed, and no adequate opportunity is afforded for a satisfactory discussion of matters, often of great importance. Resolutions, which require careful discussion, and possible modification, are hastily carried, and bear the imprimatur of Congress.

These alterations will become the more necessary in future if the constitution of the Congress is to be altered in favour of a meeting of the Australasian branches of the British Medical Association. In that case it will probably be necessary to adopt an entirely new departure in the method of conducting the business, and something akin to the Representative Meeting of the British Medical

Association in England must be instituted. This, however, is a matter for future discussion.

Meantime we hope that the executive committee of the next Congress will make some better provision for the work of the sections, and provide a longer time and more suitable opportunity for discussing matters of general medical policy than has been afforded in the past.

LUNACY REFORM IN VICTORIA.

THE Government of Victoria have at present a unique opportunity for effecting such a reform in the method of maintenance and treatment of the insane in that State as shall be an object lesson to the rest of Australia. A short time ago we referred to the present unsatisfactory method of treatment of those suffering from mental diseases, and after some discussion on this matter at the recent Congress at Adelaide an important resolution was adopted which should strengthen the hands of those in Victoria who are working for reform in the Lunacy service. The resolution referred to emphasised the importance of regarding the mentally afflicted as practically belonging to three classes. First, the early and curable cases, which should be treated in properly equipped psychiatric clinics or hospitals; secondly, the more chronic cases, which are capable of improvement, if not actual cure in all cases, which can be best treated in cottage homes and farm colonies; and third, the large class of hopeless cases, such as senile dements, for which only the provision of a benevolent asylum is required.

Dr. JONES, the Inspector-General of the Insane in Victoria, has carefully examined all the existing institutions for the treatment of the insane in that State, and has furnished his Government with an exhaustive report pointing out the various reforms which he considers necessary, and asking for the expenditure of £250,000 in the next few years on new buildings and renovating the old ones. This scheme includes the erection of a reception house for the acute and temporarily insane. The Government have secured the services of Dr. JONES to guide them at the present juncture, and he is fully seized with the opportunity he has of effecting radical reforms in the service. But why does the Government begin operations by cutting down the grant for the first year from £50,000 to £40,000, and proposing to expend £4000 or £5000 on the Kew Asylum, which has been condemned as utterly unsuitable for the purpose from a modern point of view? We have to face the fact that insanity is on the increase, or perhaps to put it more correctly the number of insane persons under official cognisance is on the increase, and provision must be made for their accommodation. But it would be well to utilise the money it is proposed to expend in patching up Kew in providing some suitable accommodation for the treatment of the early acute and curable cases, and some cottage homes to which some of the more hopeful cases could be transferred from Kew.

Unfortunately this matter is in the hands of the politicians, whose best endeavours are often thwarted by various political combinations and considerations. The expenditure of money on asylums for the insane, except in so far as it provides work for the labouring classes, is not remunerative from the politicians' point of view. But the fact that the percentage of recoveries among the insane in Victoria is the lowest of any in the Australasian States should lead its statesmen to seriously consider the slur which is thus cast upon them, and awake to the importance of the problem which lies ahead. Now is the time to adopt such reforms as will result in the recovery rate being the highest in Australasia, and in Victoria taking the lead in having the best system of dealing with the mentally afflicted.

Above all we hope that the barbarous system in vogue, not only in Victoria but in other States as well, of taking insane persons to gaols and lock-ups and *charging them with insanity* will be at once abolished. As well take a patient suffering from typhoid fever, who may happen to be wandering about, before a police court and charge him with suffering from typhoid fever! By all means let dangerous, or for that matter, harmless lunatics, who may have no home or no one able to look after them, be taken care of, not in police cells and gaols, but in proper hospital wards or reception houses; and not brought before police courts and charged with insanity. That such a practice has been so long tolerated is a disgrace to our modern boasted advance in science and civilisation.

THE MONTH.

Federal Medical Legislation.

In reply to a question asked by Mr. Grattan Wilson in the Federal Parliament whether the Prime Minister would take steps to amend the Constitution, or take other action to establish a uniform system of legislation for medical men and members of the legal and other professions, Mr. Deakin is reported to have said that if the medical societies throughout Australia preferred a request of that character he was sure it would receive the great consideration to which it was entitled. As the Constitution at present stands the Commonwealth Parliament can only deal with medical legislation by either amending the Constitution or by acting on petitions from one or more of the State Parliaments; and any Act passed under such conditions by the Federal Parliament could only be enforced in those States which had petitioned for such legislation, unless the other States expressed a wish by resolution that the law should be binding in theirs also. With the assurance which Mr. Deakin has thus offered, we think the time opportune for the Australian branches of the British Medical Association to take the lead in endeavouring to secure a thoroughly effective and satisfactory Federal Medical Act.

Medical Evidence in the Law Courts.

At the Birmingham Assizes in August last, before Mr. Justice Wills, a woman sought to recover from the Birmingham Corporation damages for injuries to her breast sustained by the overturning of a perambulator owing to a defect in the roadway. Two medical men were called to give evidence, one on each side, and the opinion expressed by one was characterised by the other as "absurd." Mr. Justice Wills, in summing up, said he thought it was to be regretted that one medical man should have spoken in the manner he did of the opinion of another medical gentleman. Members of the legal profession did not describe one another's opinions as being absurd, and he thought it was a matter for regret that evidence should be given by eminent professional men in that spirit. The unseemly spectacle of medical witnesses giving directly contradictory evidence in the law courts should never be allowed, and would never appear if the sensible course were adopted of having a conference of the medical witnesses on the two sides, when the evidence can be discussed in a friendly spirit, and a conjoint report on the purely medical aspect of the case can be presented to the judge and jury. Much would be gained by all parties if this course were adopted in all cases in which expert medical opinion is required.

School Hygiene.

The subject of school hygiene has recently been brought prominently forward in Victoria. Dr. Elkington, the chief health officer of Tasmania, dealt with it in a lecture at the Melbourne University in the presence of Mr. Tate, Director of Education, and many of the teachers from the Training College. He pointed out that school hygiene had for its special object the increase and enhancement of educational efficiency and dealt with the chief causes of defects—defects in structure, furniture and management. Infants and young children required to be gently disciplined into habits of correct breathing and working attitude, and attention to personal cleanliness and regular bodily habits. He suggested that the domestic and civic methods of isolation and disinfection in cases of infectious disease, as well as food, clothing, sleep, exercise and rest in ordinary daily life, should be explained to the pupils. In the larger schools instruction should be given to the older girls in the methods of caring for infants. Dr. Henry Laurie lectured on the same subject under the auspices of the Australian Health Society. He pointed out the necessity for good ventilation and an ample supply of light in the school buildings; and that children suffering from such diseases as consumption or epilepsy, or who had any special sense defects, should be taught in special institutions. He thought that there ought to be a periodical inspection of all school children by medical men, that all private schools should be registered, be subject to certain regulations, and be ópen to Government inspection.

Consumptive Immigrants in New Zealand.

Dr. Mason, the chief health officer of New Zealand has drawn attention to the fact that out of 190 cases of pulmonary tuberculosis treated at the Cambridge Sanatorium, 16 were stated to have come from other countries, most of whom were unable to pay anything towards the cost of their maintenance. He said that shippers were the natural enemies of the Health Department, and that the natural desire of the shipper to escape quarantine delays was the cause in nearly every instance of infectious diseases being introduced into a hitherto clean country. He maintains that if a strict examination were made at the port of departure of all persons proceeding to New Zealand to take up their residence, there would be no grounds of complaint against the Health Department on the score of their methods of dealing with consumptive immigrants.

The Queensland Hospitals Bill.

The Hospitals Bill introduced by the Government of Queensland continues to be the subject of hostile criticism. A conference of local authorities within the metropolitan area was recently held in the Brisbane City Council Chamber to consider the offer of the Government to withdraw the Hospitals Bill, provided the local authorities paid £4700 into the Treasury not later than September 30th. This sum represented one half of the liability of £9417 17s 5d due by the General Hospital. After considerable discussion the following resolution was carried by a large majority:—"That this conference, comprising the local authorities affected by the Metropolitan Hospitals Bill, are of opinion that the demand made by the Premier to cast upon local authorities the payment of the sum of £4700 is unjust and contrary to the function of or purposes for which local government was established, and decline to pay the amount." It was also resolved—"That this conference favourably recommends to the Government the scheme submitted by the Hospitals Aid Association, and intends to use its best endeavour to assist the association in giving effect to the proposals."

Leprosy in Australia.

In the report of the Fifth International Congress on Dermatology, held in Berlin in September, 1904, is an exhaustive review of leprosy in Australia during the 10 years 1894-1903, with a description of the measures in force there for the control of leprosy, by Dr. J. Ashburton Thompson, of Sydney. This is really a continuation of a previous communication by Dr. Thompson, entitled "A contribution to the History of Leprosy in Australia," which was published by the committee of the National Leprosy Fund of Great Britain, and which was brought up to date as far as 1894. The author acknowledges the co-operation of his colleagues in the different States of the Commonwealth, which has alone rendered this compilation possible. Dr. Thompson states that in the present state of our knowledge the only legal enactment respecting leprosy which could be justified would be a measure to secure to competent observers full opportunity for observation. He would advise the compulsory notification and supervision of patients and the annual survey of members of the patient's household, but "let him who has a home live and die in it if he will. Take whatever steps are necessary to enable exact observation of the epidemiological facts; but defer action which entails lifelong imprisonment, and the breaking up of homes, until the necessity for it shall have been unmistakably shown, and until the possibility of taking it effectually has been demonstrated." With these views on the segregation of lepers we entirely agree, and would welcome some modification in the present procedure in New South Wales.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

A MEETING of the New South Wales Branch was held at the Royal Society's Rooms, Sydney, on September 29th; the Vice-President (Dr. F. Antill Pockley) in the chair. There were 43 members present.

The minutes of last meeting were read and confirmed.

THE CHAIRMAN announced the election of the following new members:—Drs. Roberts, R.P.A. Hospital; Wm. Mawson, Gundagai; A. E. Finckh, Sydney Hospital; E. J. Howley, Dudley; and the nomination of the following:—Dr. T. P. Connolly, R.P.A. Hospital; Dr. Walter Fisher, Weston, *via* Maitland.

Dr. B. T. Newmarch, of North Sydney, was elected to fill the vacancy on the Council caused by the resignation of Dr. Sydney Jamieson.

Dr. C. P. B. **CLUBBE** exhibited two patients upon whom he had operated for talipes by tarsectomy, and also casts of the feet before and after operation. These cases showed, first that no case was too late for operation, and secondly that the earlier operation is resorted to the better, as an almost perfect result is thus obtained.

Dr. **BINNEY** thought one great reason why talipes cases were left so long before operation was that most authorities who had written on the subject, particularly the English writers, recommended all sorts of mechanical appliances before operation; operation being only advocated as a last resource. In Melbourne and Sydney the practice was to do a tarsectomy at an early stage, before the deformity had become confirmed, but this course was not recommended in the text-books. There was no doubt, however, that early operation gave the best results.

Dr. **CHISHOLM** thought the cases exhibited spoke for themselves, and Dr. Clubbe was to be congratulated on his results. When in Adelaide recently he had had an opportunity of seeing Mr. Kent Hughes do his operation for talipes, and he thought this gave the best results in the end. At the Melbourne Congress in 1889 one of the striking exhibits was a series of cases of talipes operated on by Sir Thomas Fitzgerald. These were seen just after operation, and the results appeared very good; but the after results were not satisfactory, and he believed Fitzgerald's operation was seldom practised now. The objections to it were that the foot became one solid mass of bone, and lost its springiness, the articular surfaces being all destroyed. He thought Dr. Clubbe's operation would lead to permanently good results.

Dr. **CLARENCE READ** would like to ask Dr. Clubbe what prospect of success there was in operation on a man of about 40 years of age for acquired talipes—the result of infantile paralysis?

Dr. **RICHARD ARTHUR** asked what method of treatment was adopted directly after operation. Was the limb put up in plaster of paris at once?

Dr. **CRIBBE** (Orange) said that *apropos* of Dr. Binney's remarks on the infrequency of operation for this condition in England, he could not speak of his own knowledge, but he well remembered Mr. Morris, at the Middlesex Hospital, 16 years ago, doing a double tarsectomy on an adult female, 50 years of age, with a result as good as Dr. Clubbe's.

Dr. **CLUBBE**, in reply to Dr. Clarence Read, said he thought it possible that an operation would be successful. In reply to Dr. Arthur, he said that the limb was put up directly after operation on a back splint, with foot piece and two side splints, for three or four weeks. Then it was put up for another six weeks or two months on a talipes tin shoe.

Dr. **GORDON CRIBBE** read a paper on the "Treatment of Uric Acid Conditions by Haig's Diet." (See p. 531.)

Dr. J. F. **FLASHMAN** said the paper they had just listened to might be considered as consisting of two parts, namely, the scientific and the empirical. There was no doubt that the diet referred to was of great benefit in many cases, but he thought it very unfair to other workers that Haig should be credited with having introduced it. Haig himself had missed the whole point of the *raison d'être* of the diet. There the purin bodies, and second, the purin-free proteid. were two kinds of proteid—first, the nucleo-proteid or If one took a mixture of these two forms of albumen, the nucleo-proteid was converted into uric acid, while the remainder was broken up in the body by some unknown process, and probably appeared in the urine as urea. During metabolism, a certain amount of uric acid was formed, no matter what diet the patient might be taking. This was known as the endogenous purin. If one took also a large amount of exogenous purin in the food, then that would appear as exogenous purin in the urine. By using a diet free from purin the whole of the exogenous purin would disappear from the urine, but the endogenous purin would remain as a fixed quantity. As regarded the pathology of some of the nervous diseases referred to, Haig spoke of there being a difference at different hours of the day in the amount of uric acid in the blood, the difference being attributed to something going on in the body. The speaker thought that that difference depended entirely on what the patient had eaten; the variation would be due to the amount of exogenous purin taken in the ood. Haig's theory as to the pathology of the various diseases referred to in the paper might be right or wrong, but it was purely empirical.

Dr. **SINCLAIR GILLIES** said that, thanks to the enthusiastic advocacy of the evils of uric acid by Dr. Haig and others, treatment of uric acid had become the happy hunting ground of quacks and patent medicine vendors, and every mail brought out a fresh specific. There was no doubt that some individuals were intolerant of the presence of uric acid and its precursors, and in them small quantities of purins produced unpleasant symptoms, in the same way that in some people quinine, iodides, mercury, eggs, tea, or other articles of diet gave rise to very unpleasant effects. Dr. Haig was evidently among those whose economy could deal with but little exogenous purin, and so he obtained relief by excluding meat, tea, coffee, etc., from his diet. On this basis he reared his theory of uric acid as a cause of most of the diseases to which flesh is heir—diseases which varied from bad temper and insanity to pneumonia, typhoid, and appendicitis! It was impossible in the time at his disposal to touch on more than a few points in the paper to show the fallacy of Haig's reasoning. Haig laid great stress on the relation of the amount of uric acid excreted in proportion to that of urea, placing the normal ratio at about 1-35. If the ratio became higher, uric acid was being retained; if lower, retained uric acid was being worked out. This was the keynote of his theory, and was absolutely wrong, being the result of imperfect methods and of working with a diet which was not purin-free. Haig in his diet allowed peas, wheatmeals and, in his earlier experiments, beans and any vegetarian food. Now, beans contained as much purin as cod and tripe, and pea-meal more than half as much, oatmeal nearly as much. On the other hand, he excluded eggs, which are purin-free. The use of such diet caused variation in the output of uric acid in proportion to the quantity consumed. On purin-free diet the output of endogenous purin was practically constant for the individual, and did not vary with the amount of proteid ingested. This had been well shown by Walker-Hall, and the speaker had confirmed it in the case of himself and others. Of ingested purin, 50 per cent. was excreted as such in 48 hours, the rest being probably oxidised to urea. To take an extreme example of Haig's theory. On a diet of bread, uric acid-urea proportion is 1-84; on beef, 1-48. Therefore on bread diet, according to Haig's theory, uric acid was being stored up. As a matter of fact, the difference was due to bread containing no purin, while meat contains much. On bread diet the excretion was of endogenous purin; on meat, of endogenous, plus half the exogenous purin supplied in the meat. One could scarcely discuss seriously the function of uric acid in disease with a man who held that in pneumonia and other infections the micro-organism was of secondary importance, the main factor being the presence of uric acid, or who held that iron cured anæmia by forming an insoluble compound with uric acid in the tissues. As regarded gout, it was doubtful whether uric acid was more than a bye-product in the disease. The primary factor in gout was probably perverted metabolism in the liver, and possibly elsewhere, which produced bodies harmful to the organism, and among them uric acid, which was a result and not the cause of the errors of nutrition exhibited in gout. He fully realised the benefits of a purin-free diet in certain cases, but could not regard it as a panacea for all so-called uric acid diseases. He recommended Dr. Walker-Hall's book on the purin bodies of the foodstuffs to any who were interested in the accurate and scientific study of the subject.

Dr. Camac Wilkinson said that anyone who had read the criticisms on Haig's investigations by the pathological chemists would admit that so far as his theory was concerned there was a great divergence of opinion. According to Haig, an individual saturated with uric acid would be subject to diseases of different kinds; but if uric acid were the basis of them all, then why should these diseases not all assume the same form? The chemistry of uric acid was a complex subject, and the methods of detection of that substance in the blood were so technical that only pathological chemists were competent to speak on the subject. There was, however, a unanimity of opinion among pathological chemists that uric acid was very difficult to discover in the blood even in gout, and when one heard the statement that in some of those diseases the blood was saturated with uric acid, they were listenng to a theory and nothing more. If there were any diseases in which the bad effects of uric acid should manifest themselves they would be gout, leukæmia, and some fevers. Although gout and leukæmia both manifested a large amount of uric acid in the blood and urine, they were very dissimilar. The origin of the uric acid in leukæmia was well known, but not so as regarded its origin in gout. Gout was a disease which attacked animals as well as man. In animals there was a close relationship between the intake of highly nitrogenous bodies and a uratic condition of the blood. The liver and kidneys were specially affected in gout; gout might arise from causes other than errors in diet. In gout and leukæmia in which an excess of uric acid was discharged by the kidneys, there was also an increase of both uric acid and glycocoll, and the relations of these two bodies was at present engaging the attention of chemists. Glycocoll was probably derived from purin bodies and was converted in the liver into urea. According to its pathological anatomy, gout had nothing to do with uric acid *per se*, but the uric acid was only an index of other changes. Gout, unlike other pathological conditions, localised itself in the big toe joint, and it was probable that injury had much to do with this localisation. Glycocoll was one of the products of decomposition of joint tissue, for if in an animal a joint were injured there was an increase in the amount of glycocoll. Further experiments had shown that glycocoll hastened the precipitation of uric acid while urea inhibited it; so that the probable explanation of the gout attacking a joint was injury plus glycocoll. In leukæmia the uric acid was increased in the blood; glycocoll was also increased in the blood, yet one never found gouty conditions in leukæmia because one did not find in that disease the disorder of the liver and kidneys which determined the occurrence of gout. In the treatment of gout all the drugs which were found to be useful stimulated the liver, and in that way the gouty condition was relieved but not cured, because the kidneys were permanently disordered. The dietetic treatment of disease was well recognised, and no doubt many diseases were brought about by faulty diet, but so long as they followed the teachings of chemical pathology they were on the right track for successful treatment.

Dr. Crago said that neither the reader of the paper nor any subsequent speaker had mentioned Luff's views on uric acid. Luff held that uric acid only existed in the blood in the form of quadriurate of soda (which was a soluble salt), and that if soda were given in any form it converted the quadriurate into a biurate (which was an insoluble salt), and as such was deposited in the fibrous tissues of the body. The case mentioned in the paper, where an acute attack of gout followed the drinking of a large quantity of mineral water, supported that view. Luff, in his work, gives numerous tables of the solvent action of solutions of the various so-called uric acid solvents, but in no case was the solvent power greater—if as great—than that of an equal quantity of distilled water. Amongst vegetables "spinach" stood out *facile princeps* as possessing the greatest solvent effect on uric acid salts.

Dr. Arthur congratulated Dr. Cribbe on his bringing that subject before them. He agreed with Dr. Flashman that they had to consider the practical part of the question as well as the scientific. Haig's theory might be all rubbish, but the proof of the pudding was in the eating, and there was no doubt that many people were greatly benefited by adopting the diet suggested by Haig. He had come across a good many men who said it paid them to keep strictly to that diet, inasmuch as they suffered much less from minor ailments while they did so. In his student days very little was said about dieting in different diseases, and he thought the subject had been much neglected. He thought it probable that the benefit derived from that particular line of dieting was not the getting rid of the purin bodies, but the diminution in the total amount of food ingested.

The Chairman said he had listened to the paper and the discussion with much interest. When he was 16 years of age he had had an attack of gout, and he had a strong hereditary tendency to the disease, but he had not had any attack since, and he now took meat three times a day, and ate and drank what he liked, and never took a dose of medicine.

Dr. Cribbe in reply said he was prepared for some adverse criticism. He was not prepared to discuss the questions raised as to the chemical pathology of these diseases. He only came to relate his practical experience of the diet suggested by Haig, and he had had remarkably good results from so doing. He advised them to try it in suitable cases, and he felt sure they would not be disappointed.

Council Meeting.

The Council met at the Association Rooms on Tuesday, September 19th. Present: Drs. Pockley, Brady, Rennie, Abbott, Crago, Hankins, Worrall, Maitland, MacCormick, Dick, and Jarvie Hood.

The minutes of the previous meeting were read and confirmed.

The following gentlemen were elected members of the Branch:—Drs. Roberts, E. J. Howley, W. Mawson, and A. E. Finckh.

Letter was read from Dr. Twynam with reference to the Branch subscriptions for the Colonial Branches. Received.

Letter was read from Dr. Sydney Jamieson resigning his position on the Council. Resolved—That Dr. Jamieson's resignation be accepted with regret.

Sub-Branch at Albury—Letter of hon. secretary with reference to the formation of a sub-branch at Albury was read and approved.

Letter from Dr. Machattie, of Bathurst, suggesting that a general meeting of the Branch be held at Bathurst on November 29th. Resolved—That it be suggested to postpone the meeting until next year.

Letter from the Medical Secretary of the Home Association forwarding the opinion of the Ethical Committee on the question of ethics submitted for consideration of that body.

Letter from Dr. Gordon Craig giving notice that he would move a motion with regard to meeting homœopaths in consultation. Resolved—That a special general meeting of the Branch be held on October 13th.

The Hon. Treasurer reported that two ex-members still owed the Branch £4 4s each. Resolved—That legal proceedings be taken.

Letter was read from Dr. A, of X, complaining of the conduct of Dr. B, of Y, in taking charge of one of Dr. A's cases. All the correspondence in the matter was submitted. Resolved—That Dr. A be informed that in the opinion of the Council Dr. B was quite justified in examining the case and doing what was immediately necessary, the case being brought to his house especially for his opinion. That seeing that the father absolutely refused to take the patient back to Dr. A, Dr. B was justified in continuing the treatment. That it would have been better had Dr. B written at once to Dr. A instead of sending as he did a verbal message by the father of the patient. That the Council accepts Dr. B's assurance that he made no remarks reflecting on the previous treatment of the case.

The report of the committee appointed to consider the scheme submitted by Dr. Jamieson for the reorganisation of the Branch was submitted and approved.

Victoria.

THE ordinary monthly meeting was held on September 20th; the President, Dr. H. W. Bryant, in the chair.

Dr. JAMES COX showed three cases in which he had performed the radical mastoid operation. After these had been examined by the members present, he read notes on a fatal case.

In discussing the cases, Dr. WEIGALL said that cases of otitis media were of great interest to the general practitioner. They were often very difficult to diagnose. There were two classes of cases—the chronic slowly advancing cases and the acute fulminating ones, which might kill before treatment could be carried out. He recalled a case in which a week after a mild influenzal attack a child was found to have a temperature of 105°, rapid pulse, clean tongue, and no definite ear symptoms beyond being a little deaf in one ear. Next day Dr. Cox saw her in consultation and recognised some indefinite condition of one ear. There was continued high temperature, subsultus tendinum and excitement, but no delirium. Two days later Dr. Cox on seeing her again advised immediate operation. This was done, and pus was found deep down, and the girl died suddenly on the table. The post-mortem examination disclosed a condition of general acute pyæmia with abscesses in every organ, a hopeless condition from the beginning. Acute otitis media might be mistaken for typhoid fever.

Dr. BRYANT also spoke, and thanked Dr. Cox for bringing his cases before the Association.

Dr. WEIGALL read notes on a case of "Addison's Disease in a Youth." (See page 546).

Dr. BLACK asked whether the boy were still taking the tabloids?

Dr. HENRY LAURIE referred to Byrom Bramwell's division of Addison's disease into two classes—one due to inadequacy of the adrenals only, due to tuberculosis, malignancy, etc., and the other where there was involvement also of the abdominal sympathetic system, especially of the semi-lunar ganglia. Dr. Weigall's case evidently belonged to the former class, as in those cases only was improvement to be seen on treatment with supra-renal extract. The most interesting point in this case was the fact that the youth was now, nearly two years later, apparently well, though not now taking the supra-renal extract. The length of time, 100 days, during which treatment was continued was most unusually short. What was the lesion in Dr. Weigall's case? Was it tubercular? The apparently absolute cure made it extremely interesting in view of the fact that certain observers have advocated small doses of supra-renal extract in all cases of tuberculosis, having regard to the fact that in tuberculosis there is present as a rule a state of arterial hypotension.

Dr. WEIGALL also read notes on a case of "Ectopic Gestation occurring during Lactation."

Dr. CUSCADEN said that cases of ectopic gestation were always interesting, and that it was a most unusual thing to see a case in a nursing woman. He also referred to an interesting case read by Dr. Meyer before the Medical Society of Victoria and reported in the AUSTRALASIAN MEDICAL GAZETTE of April, 1905.

Drs. NYULASY and ESLER also spoke.

Dr. ESLER showed a piece of a sigmoid flexure with complete annular constriction. There was complete obstruction. The patient had not sought medical advice until four days before her death, though there had been marked wasting for some time. Colotomy was performed, but the patient never rallied.

Dr. ESLER also showed a Murphy's button which had been retained 56 days. It was a case of hernia which had come down, and in violent attempts to return it his friends had succeeded in rupturing the intestine. An excision was found necessary.

Dr. McDONALD, of Geraldton, Queensland, was then introduced by the president, and spoke for a few minutes upon the relationship of tropical diseases to a white Australia.

South Australia.

THE first monthly meeting of this branch since July was held at 8 p.m. at the University on Thursday, September 28th, 1905. Present: Dr. Lendon (president) in the chair, and 28 members and one visitor.

The minutes of last meeting were taken as read, and signed.

Drs. Marten and Newland showed a female patient, æt. 60, who was suffering from myelopathic albumosuria. The history disclosed several fractured bones during the last two years. The albumose was demonstrated in the urine, and Dr. Newland exhibited some excellent skiagraphs of the bony conditions. The case is going to be reported in full.

Dr. W. T. Hayward showed a young woman with myxœdema, which was complicated by a peculiar "steppage" gait.

On the motion of the President, seconded by Dr. Todd, the following resolution was unanimously carried—"That this meeting place on record its appreciation of the manner in which Professor Stirling has carried out the onerous duties of president of the recent Australasian Medical Congress. His fellow members of the branch who originally nominated him for this position now recognise that he has amply justified their confident expectations. By his able and dignified conduct of the Congress, by his valuable presidential address, and by his hospitable entertainment of the members, Dr. Stirling has done much to enhance the prestige of the medical profession of this State."

Dr. Lendon then read a paper (with post-mortem notes) on a case of "Papilloma of Kidney." (See page 527).

Dr. J. G. Wilson read a paper on "Retroflexions," which led to a long discussion by Drs. J. A. G. Hamilton, Morris, Verco and others; and Dr. Wilson replied.

Two other papers were held over until next meeting.

REPORTS OF OTHER SOCIETIES.

Medical Society of Victoria.

The usual monthly meeting was held on October 4th; the President (Dr. Jeffreys Wood) in the chair.

Dr Springthorpe moved the following resolution:—"That the Medical Society of Victoria sympathises with the movement for closing cemeteries against Sunday burial, except in special cases; supports the action of the Council of Churches, the Undertakers' Association (Employers), the Undertakers' Assistants Union (Employees), and the majority of cemetery trustees in that direction; and urges upon its members that they give certificates for Sunday burial only in cases of necessity."

This was seconded by Dr. Felix Meyer.

Dr. W. Moore approved of the principle, but objected to the wording of the resolution. He moved as an amendment that the motion read as follows:—That the Medical Society of Victoria, in order to lessen the number of Sunday burials, urges its members to give orders only in cases of undoubted necessity."

This was accepted by Dr. Springthorpe, and carried unanimously.

Dr. Clendinnen showed a man in whom internal lymphadenoma had been removed by treatment with X-rays. The patient was admitted to the Melbourne Hospital with a large tumour in the right side of the abdomen. On operation the mass was found to be retro-peritoneal, and on the peritoneum over it being incised it was discovered to consist of a mass of enlarged lymphatic glands. No attempt at removal was made. The patient was put on liq. arsenicalis, and X-ray treatment was begun on April 4th. By the end of May the tumour was very much smaller, and by the end of July it had quite disappeared.

A case of traumatic myositis ossificans with skiagrams was shown by Dr. Clendinnen. The patient was a butcher and was continually carrying weights across his right forearm. There was a large localised hard swelling in the muscles on the front of the forearm.

Dr. Clendinnen also showed skiagrams from a case of double congenital dislocation of the radii, and a youth, a blacksmith by trade, who was able voluntarily to produce a backward subluxation of the left shoulder-joint. There was also a tendency to the same condition on the right side. The subluxation seemed to be effected mainly through the agency of the latissimus dorsi muscle.

Dr. J. E. Andrew read notes on two unusual obstetrical cases. The first was one of Siamese twins diagnosed during delivery as a case of locked twins. Considerable difficulty was encountered in delivery, and they were still born. The mother got on splendidly in spite of the long labour. The second case was one of partial placenta prævia, followed by sepsis and fatal gangrene of the left leg. A few days before labour came on he was sent for on account of hæmorrhage, and found the condition of partial placenta prævia. With rest, however, the hæmorrhage ceased, but there was a somewhat offensive discharge. He did not, however, interfere, as there were no symptoms of absorption, and he was expecting labour to come on at any moment. During labour there was an extensive tear of the vaginal wall, not, however, extending into either the cervix uteri or the perinæum. She then began to run a high irregular temperature and a quick pulse. The lochia at first were very offensive. Anti-streptococci serum was administered and antiseptic douchings used. There was improvement till on the tenth day she had very intense pain in the left leg. The foot next morning was blue and cold. At no time was there any line of demarcation, nor was she in a fit state to undergo amputation. She gradually sank and died thirty-one days after delivery.

Dr. Felix Meyer, in discussing the second case, said that it was a pity treatment had not been initiated earlier because of the foul discharge before delivery. The vaginal tear was undoubtedly the avenue of absorption.

Dr. Rothwell Adam considered that when placenta prævia was diagnosed the best procedure was in all cases to empty the uterus as soon as possible, not only on account of the risk of hæmorrhage, but because blood clots invariably collect in the uterus and cervix, and the cervix being partly open affords an avenue for infection. In these cases Cæsarean section was sometimes the best procedure. The easier plan, however, was to pack the cervix and lower uterine segment with gauze, remove in twenty-four hours, and repack if necessary.

Dr. Andrew, in reply, thanked Drs. Meyer and Adam for their criticism. He said that after thirty years' midwifery practice, and having had several cases of placenta prævia without any trouble, he had not realised all the possibilities in this case, a fact he now regretted. He was, he hoped, even now not too old to learn by experience.

Dr. Dunbar Hooper read the report of the sub-committee appointed to consider the question of puerperal sepsis. After slight amendment the report was adopted on the motion of Drs. Adam and Meyer.

Dr. H. Cairns Lloyd read notes on the bacteriology of puerperal infection. He advised that in all cases where the temperature was above 100·8° F. during the puerperium without any discoverable extra-uterine cause, a scraping of the uterine wall should be taken and submitted for bacteriological examination. He described the methods which he had found satisfactory. He gave a detailed account of the bacteriological findings in 160 cases examined by him at the Rotunda Hospital, Dublin, and the Women's Hospital, Melbourne. Streptococcic infection was found in about 56 per cent. of the cases and was the most important, as a pure streptococcal infection, which, however, only occurred in 9 per cent. of the cases, was often difficult to diagnose, as there was no fœtor. Fœtor was only seen in mixed infections with the bacillus coli communis. The other infective agents found were the bacilli coli communes, diplococci, bacilli capsulatus ærogenes and staphylococci.

Dr. **Meyer** considered that Dr. Lloyd's paper merited a more thorough discussion than time would permit. He moved that discussion be adjourned until the next meeting. This was seconded by Dr. Adam and carried unanimously.

Dr. **Weihen** showed a specimen of ectromelus, in which both arms and legs were absent. Skiagram showed that there was a rudimentary femur on the left side, and the absence of a sternum. There was also an imperforate anus. It was evidently not a case of intra-uterine amputation of the limbs, but a case of want of development. It was the mother's tenth confinement.

The Royal Alexandra Hospital for Children.

The 13th clinical afternoon was held at Valentine-lane, Sydney, on Friday, September 22nd; Dr. W. Chisholm presided.

Dr. **Binney** exhibited a girl aged 11 years who 12 months ago suffered from pericarditis with effusion. The pericardium was aspirated three times at intervals of two days, and about 4 oz. of blood-stained serum withdrawn each time. She was now in good health, but there were signs of adherent pericardium.

Dr. **Wade** showed a girl aged 11 years with congenital dislocation of both hips; also a girl aged 7 years suffering from facial paralysis; and the result of the treatment of a nævus of the face by electrolysis in a girl aged 1½ years.

Dr. **Read** exhibited an infant suffering from a localised œdema of both hands and of the vulva, a condition best described as œdema neonatorum

Dr. **Litchfield** showed a baby whose heart was evidently on the right side of the chest. A subsequent examination by means of the X-ray screen revealed a complete transposition of the viscera. He also showed a boy aged 9 years suffering from some lameness of the left leg. There was three-quarters of an inch shortening, and some limitation to movement at the joint. There was a history of injury six months ago which confined him to bed for a few days. The X-rays revealed what appeared to be an impacted fracture of the neck of the femur.

The Border Medical Association.

The Border Medical Association held its quarterly meeting at Wangaratta, Victoria, on Tuesday, September 26th. The following were present:—Dr. Harkin, president; Dr. Harris, vice-president; and Dr. McCardel, Dr. Boyes, Dr. Henderson, Dr. Shuter, Dr. Andrews, and the hon. secretary, Dr. W. H. Lang. Many apologies from members were received.

The hon. treasurer's statement showed that 27 members had paid their subscriptions and that there was a cash balance at the bank of £17 12s 6d.

Dr. **Andrews** proposed a resolution—"That this association affiliates with the Victorian branch of the B.M.A." Dr. **Boyes** seconded.

After considerable discussion, Dr. Andrews agreed to draw up a circular, pointing out the *pros* and *cons* of the matter, which should be sent round to all the members, and their votes taken for or against affiliation. The matter would then be again gone into at the next meeting in December.

Dr. **McCardel** exhibited a case of hydatids of the lung of 16 years' standing in a healthy-looking man. There was still a sinus through which air could be expelled at will, and through which water found its way into the mouth on bending down.

Dr. **Andrews** showed specimens of ureteral calculi.

Dr. **Shuter** read a paper on "Appendicitis, from the point of view of the general practitioner." (See page 541.) All the members present took part in an animated discussion.

Dr. **Harris** added some fresh particulars to his paper read at last meeting on "A Dysenteric-like Epidemic in the Rutherglen District."

The next meeting will be held at Wangaratta in December.

OBITUARY.

David D. Rutledge, M.A., M.B., Ch.M. (Syd.), Sutton Forest, N.S.W.

We regret to record the death of the Rev. David D. Rutledge, M.B., Ch.M., which took place at Sutton Forest on September 19th. He was educated at Sydney Grammar School and Sydney University, taking the degree of M.A. He was ordained for the Church of England ministry by the Bishop of Newcastle, and served as a curate in various incumbencies. When the medical school was opened at Sydney University he resigned from his parish to accept the position of assistant minister at St. Stephen's, Newtown, and he also entered as one of the first students in the medical school. He was the first medical practitioner trained at the Sydney University. He practised for some years in Sydney, but feeling that the two professions could not be followed concurrently and satisfactorily, he again took a parish at Mittagong, and gave up the medical profession. He went to England a few years ago, and shortly after his return was appointed to the Sutton Forest parish, where he lived until his death at the age of 53. His wife survives him with 11 children.

Oral Sepsis.—"EUMENTHOL JUJUBES" (Hudson) Made in Australia.
A Gum pastille containing the active constituents of well-known Antiseptics, Eucalyptus Globulus, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzoborate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic, prophylactic, reducing sensibility of mucous membrane. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after a comparative test of "Eumenthol Jujubes" and beech-wood Creasote, reports that there is little difference in their bactericidal action. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creasote." G. Hudson, Manufacturing Chemist, Ipswich, Queensland. London Agent: W. F. Pasmore, Chemist, 320 Regent-street, W.—[Advt.]

Messrs. Parke, Davis & Co. direct attention to their advertisement on page 12.—[Advt.]

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

Ligature of the Innominate Artery, with Report of a Successful Case.

Sheen, of Cardiff, England (*Annals of Surgery*, July, 1905), contributes an exhaustive article on the above. Prior to the present case, ligature of the innominate artery had been performed successfully seven times, viz., three times in the United Kingdom, three times in the United States, and once in India. The accounts of previously-recorded cases form an interesting chapter of surgical history. In spite of its previous high mortality, the writer believes that the operation has a successful future. The patient in the present case was a man of 46, a labourer, formerly a soldier, with an aneurism of the second and third parts of the subclavian artery of six months' duration. On March 31st, 1904, the innominate and the right common carotid arteries were tied. Pulsation ceased in the aneurism, but was found to have returned to some extent on the following day. On May 19th an unsuccessful attempt was made again to tie the innominate. On June 2nd the second part of the subclavian was tied close up to the aneurism. Recovery took place, with the consolidation of the aneurism, and the man remained well when last seen, eight and one-half months after the first operation. Minute details of the three operations are given. The incision was a central one, five inches long, extending from the cricoid to an inch or more below the sternal notch. Very great care was taken to ensure asepsis. A tabular statement of 36 cases which have been recorded is given; two of the number, Nos. 6 and 29, were performed in Sydney. No. 6 was performed by the late Dr. Bland in 1832, and No. 29 by Dr. Twynam in 1889. The author has arrived at the following conclusions:—1. That in properly selected cases, ligature of the innominate is a reasonably safe and undoubtedly useful operation. 2. That suitable cases are those in which the aneurism is of a circumscribed, globular character, and the general condition of the patient is otherwise good. That unsuitable cases are those in which the aneurism is what is commonly called fusiform, but is really often nothing more than part of a general arterial dilatation, and in which there are marked signs of general arteriosclerosis, with accompanying visceral disease. 3. That the maintenance of asepsis is the main factor in obtaining a successful result. 4. That the incision should be central with horizontal and vertical division of the manubrium, if necessary. 5. That the carotid should be tied as well as the innominate. 6. That silk is the best ligature material. 7. That some amount of injury to the inner coats is probably necessary to insure occlusion, but that with aseptic conditions such injury does not matter. 8. That two ligatures should, if possible, be placed round the vessel, the first turn of the proximal ligature being held tight, so as to keep back the blood while the distal ligature is completely tied. 9. That the use of a drainage tube is inadvisable. 10. That as a study of the recorded cases shows that, next to asepsis, some cerebral lesion has been the most frequent cause of death after operation, it would be well for future operators to consider the advisability of tying the carotid about a fortnight before the innominate. 11. That "Valsalvan" methods of treatment immediately prior to operation are inadvisable.

The Operative Treatment of Fracture of the Patella.

Rigby (*The Practitioner*, May, 1905) makes a strong case for the general adoption of the operative method of treating fractures of the patella, founded on a personal experience of 21 cases so treated during the last four years. The patients were, for the most part, men and women in the prime of life, engaged in laborious occupations and dependent entirely for their subsistence on regular and constant work. A striking feature in these 21 cases treated by open operation was the comparatively brief duration of their period of disablement. Under the old treatment, at least six or nine months elapsed before the patient could resume work, fully six weeks of which was spent in bed. After the operative treatment, as advocated in this paper, the patient is only kept in bed for a fortnight, and can usually resume work in from six to eight weeks after the operation. The main arguments the author relies upon are:—1. That the loss of time consequent upon the receipt of the injury is enormously reduced. A clear gain of about six months can be reckoned on in an average case. 2. That the operation ensures sound bony union with a perfect functional result. The author gives his reasons for disagreeing with the subcutaneous methods of Kocher and Barker. The open method of treatment here advocated consists in—(*a*) Exposing the fragments by an incision which may be vertical, transverse, or semilunar; (*b*) emptying the joint of blood-clot, serum, and torn tissue; (*c*) freshening the surfaces of the fragments; (*d*) passing the wires through holes bored by a drill; (*e*) suturing the lateral tears in the expansions of the quadriceps. The author found that a semilunar incision gave the best view of the fragments and joint cavity. It is advisable to pass two wires, if possible, in every case. Silver wire is preferable to either silk or tendon. In simple stellate fractures, with but slight displacement, there is no need for operative treatment. Sepsis occurred in three of the cases; the others healed by first intention. The early commencement of massage—about the twelfth or fourteenth day—is advocated. The paper is illustrated with radiographs and photographs, and concludes with a tabulated list of the cases.

Some Remarks on Cases involving Operative Loss of Continuity of the Common Bile Duct.

W. J. Mayo (*Annals of Surgery*, July, 1905) contributes a paper on the above, with the report of a case of anastomosis between the hepatic duct and the duodenum. In 1100 operations upon the gall-bladder and bile passages which have occurred in the practice of Dr. C. H. Mayo and the author up to March, 1905, 159 were upon the common duct of the liver, and of these latter seven have involved complete loss of the continuity of the common bile duct as a direct result of the operation, five were intentionally produced in the attempt to remove a malignant neoplasm, one was accidentally caused, and one followed an extensive operation for gallstone disease, the latter forming the case reported in detail. The possibility of union between the divided ends of the common duct was discovered in an unfortunate manner. During a difficult cholecystectomy the common duct was accidentally divided, and the ends were widely separated before the accident was discovered. The duct was of normal size, which rendered suturing difficult and uncertain. Three catgut sutures were placed in the remnants of the peritoneum, adhesions and right margin of the gastro-hepatic ligament drawing the duct ends into apposition; five fine catgut sutures were then introduced through all the coats of the common duct, throughout three-fourths of its circumference, leaving a gap anteriorly for drainage. The external bile discharge ceased in sixteen days, and the patient had no further trouble, now nearly two years ago. The same technique was applied to a case of carcinoma of the gall-bladder which extended into the common duct. Patient made a good recovery, and remained well for 13 months. The condition of the third case was due to a small, hard, malignant growth in the common duct causing obstructive jaundice. The tumour, with nearly an inch of the common duct, was excised, and the ends sutured as in cases I and II. The patient, however, died from capillary hæmorrhage on the third day, without fully recovering from the initial shock. The first attempt at direct union of the common bile duct to the duodenum came about through an effort to remove, what they supposed at the time to be, a stone impacted in the common duct, just in the margin of the pancreas, and underneath the edge of the duodenum. The duodenum was loosened on its right side, turned upward and to the left. The duct was incised, and the supposed stone found to be a typical duct carcinoma—hard, greyish white, and well defined. It was excised, and the space closed by catgut sutures. The common duct was reinstated at a new location in the duodenum, at a point where it was covered by peritoneum, after Halsted's plan; catgut was again used as a suture material. A wick drain was inserted down to the suture line; this was a mistake. There was no leakage until the drain was removed, which did not take place until the end of a week. The plastic lymph which should have protected the suture line became entangled in the meshes of the gauze, causing difficulty and delay in removal, and so disturbed the union as to allow a minute fistula to form. This gradually increased in size from the biliary and duodenal discharge until the patient was exhausted and died at the end of the eighth week. Cases V and VI were also for malignant disease. The author has briefly reviewed these cases to illustrate a few facts which experience has taught, and which may be summarised as follows:—First, the common duct may be united end to end by through-and-through catgut sutures; it is essential that a few supporting sutures should be placed in the surrounding tissues, and that a portion of the line of union be left open for the relief of tension and drainage. Second, the common, and in extreme cases, the hepatic duct may be implanted into the duodenum, provided a peritoneal covered portion of the intestine be chosen for the purpose. Third, to facilitate these operations, the second portion of the duodenum should be loosened and drawn to the right, and held by fixation sutures, preventing tension of the duct suture line. Fourth, drainage, if necessary, should be pliable, covered with rubber tissue, and placed as distant from the suture line as will serve the purpose of protection against leakage. Case VII was one of cholecystectomy and choledochotomy, followed by extensive stricture of common duct, which was relieved by secondary anastomosis between the hepatic duct and duodenum. The patient was a woman of 22, with a history of four years' suffering from "stomach cramps" and pain in right hypochondrium, which passed through to the right shoulder. Operation, July 1st, 1903. Gall-bladder found contracted and full of gall-stones. The common duct was also full of stones and débris, and closely adherent to the duodenum and surrounding structures. The gall-bladder was removed from below, upward, without opening its cavity. The cystic duct was slit downward into the common duct, which was freely opened. The cleaning process was difficult, and, when completed, the duct was seen to be greatly thickened and the mucous membrane eroded. A few interrupted catgut sutures were introduced in the incised duct, up to the entrance of the cystic duct. A quarter-inch drainage tube was inserted at this point, and fastened with two fine catgut sutures. A gauze drain, protected by guttapercha tissue, was also inserted. Drains left out on the eleventh day; patient discharged on the twentieth day, with a healed wound. Was readmitted 11 months later. Had kept well for five months; after that noticed some general skin pruritus, slight jaundice, and an unpleasant sensation in the stomach. After a time the old drainage tract in the former incision opened up and discharged bile freely. This continued to discharge intermittently until the time of the second operation. The patient was placed in the Robson position, and a five-inch incision made internal to the cicatrix of the former wound. With considerable difficulty, on account of adhesions, the original drainage opening at the site of the cystic duct was discovered. The hepatic duct was dilated and easily admitted the tip of the index finger to the primary division. The common duct was reduced by cicatricial contraction to a fibrous cord, along which could be traced a little stain of bile. The wound having been enlarged towards the sternal notch, and the liver held up, the hepatic duct was freed from its attachment to the fistulous tract and from the remains of the common duct. The duodenum was caught with three catgut sutures about three inches from the pylorus, and fastened firmly to the adhesions and scar tissue about the hepatic duct, so that it was brought into contact with the end of the hepatic duct. At the point of easy contact an elliptical piece of all the coats of the duodenum was excised of about the same diameter as the open end of the hepatic duct, and four or five catgut sutures were introduced from the mucous side through all the coats of both duct and intestinal wall. By alternately placing a suture externally and internally, the sides were built up in a similar manner to a two-row intestinal anastomosis, excepting that only the inner row penetrated the duct wall. The duodenum was still further stitched laterally and anteriorly to the scar tissue covering the liver and ducts by catgut sutures, making a broad area of attachment. Drains of rolled guttapercha tissue were placed at the upper and lower angles of the abdominal incision, and the abdominal incision was then closed. Patient made an uninterrupted recovery. The author ends his communication with the remark that the original removal of the gall-bladder was unfortunate, as a cholecystenterostomy would have been far easier as a second operation, provided, of course, that drainage would have restored its function to a sufficient extent. The steps of the operation are clearly illustrated in the original paper.

THERAPEUTICS.

Apomorphine in Severe Chorea.

Tull (*Proceedings of the Philadelphia County Medical Society*, January 31st, 1905) reports the following case:—A girl, aged 15 years, who came of a neurotic stock, while at school began to show signs of chorea, as a result of the general strain on the nervous system. She was put on the usual treatment of arsenic and iron, and plenty of outdoor exercise was recommended. In spite of this, she grew worse. She soon was quite unable to stand or walk. The condition passed rapidly to an acute maniacal attack, with very furred tongue, the lips being covered with a thick tenacious mucus, and her articulation became unintelligible. She had to be surrounded with bolsters to prevent her seriously injuring herself by contact with the bedstead and the walls. She was treated at various times with strontium bromide, arsenic, opium, morphia, and hyoscyamus. After many days of this treatment there was no improvement, but a steady retrogression. The arsenic was rapidly increased to 16 minims three times daily, with still no apparent benefit. Tull then administered hypodermically 1-40th grain of apomorphine with most gratifying and most surprising results. Within three minutes the incessant motion had ceased, the muscles were relaxed, and the child slept peacefully and quietly. He then ordered 1-20th grain of the drug by the mouth every three hours, with the arsenic continued as before; at no time was there any sign of nausea or vomiting. A steady gradual improvement set in, with no return of severer symptoms. Ten days later the patient was able to go to the country, where she spent the entire summer in good health. The earlier treatment of the case was reviewed and endorsed by Professor Charles S. Potts, who at the same time confirmed the diagnosis and testified to the unusual severity of the attack. The writer remarks that this is, of course, but a single case, yet the result was so satisfactory that one would be justified in using this drug in similar cases.

Rectal Injections of Large Doses of Sodium Salicylate in Cerebro-spinal Meningitis.

Seibert (*Medical Record*, June 17th, 1905) calls attention to a plan of treatment of cerebro-spinal meningitis, which he has found effective during the last four years. He records five cases of this disease in which the diagnosis was undoubted, and in which this treatment was followed by complete recovery. In not one of these reported cases was Quincke's tapping of the spinal cord resorted to, because the clinical picture in each case was sufficient to establish the diagnosis, and the author did not wish the therapeutic result to be attributed to the tapping. He remarks that in some cases of meningitis tapping may occasionally save life by relieving pressure, but cannot be considered as curative, and injections of bactericidal fluids into the spinal canal will never reach the organisms they are intended to destroy. Any remedy for cerebro-spinal meningitis, to be effective, must travel the same road which the infectious organism has taken, namely, through the blood current. Salicylates have for some time been used in cerebro-spinal meningitis, but he thinks the doses hitherto used have been too small, and the cases he now records show that large doses of salicylates can be given per rectum in cerebro-spinal meningitis without harm. The value of rectal medication in meningitis is evident, and only per rectum can large doses be introduced into the system without causing gastric disturbances. He administers per rectum 15 grains of sodium salicylates, dissolved in ½ ounce of warm water at intervals varying from every hour to every six hours, according to the age of the patient and the severity of the symptoms, and considers that the action of the drug may possibly be an interference with the vitality of the diplococcus intracellularis.

The Treatment of Psoriasis.

Dreuw, who is an assistant at the Clinic of Unna, Hamburg (*Journal of American Medical Association*, June 10th, 1905), gives the following prescription for an ointment which he has used successfully in the treatment of psoriasis. It consists of:—Acid salicylic 2¼ drams, chrysarobin and ol. rusci of each 5 drams, sapo. virid. and vaseline of each 6¼ drams. The treatment is as follows:—For from four to six days the ointment is applied by means of a stiff brush to the affected area (after this has dried somewhat it is well to apply a little starch or zinc powder). On the fifth or sixth day the patient starts taking hot baths daily for from one to three days, and after the bath vaseline is to be well rubbed in from one to three times a day. This course of treatment, which embraces a period of eight days, may be repeated several times, according to the severity of the disease, but, as a rule, the psoriasis patches disappear soon after the first treatment. During treatment the appearance of the lesion is as follows:—One or two days after the application has been begun it will be observed that the ointment remains on the normal skin immediately surrounding the patches of psoriasis as a black parchment-like crust of the thickness of a piece of paper, whereas over the affected areas the ointment does not stick, but rather causes a powerful scaling of the entire plaque. Wherever psoriasis exists in any shape, from the simple papula to the formed scale-covered plaque, an intense feeling takes place. In the writer's opinion the ointment, according to different effects on normal and diseased skin, as described above, acts as an indicator for all areas of psoriasis. The black crusts which become closely adherent after five or six days' treatment gradually loosen after a few days of bathing, and the inunction with vaseline or with zinc sulphur ointment.

Viferral: A New Hypnotic.

Witthauer and Gartner (*Therapeutische Monatshefte*, translated in the *Therapist*, August, 1905) report that in viferral we have an improved chloral hydrate. It is in the form of a white powder, melting at 153° C. It dissolves very slowly in cold water, but is completely soluble in hot water. It is not appreciably affected by water slightly acidulated with hydrochloric acid; conversion into chloral hydrate in the stomach therefore does not occur. Owing to the polymerization the highly corrosive properties of chloral are not present, and no irritating action on the gastric mucous membrane occurs. Further, the dose of viferral can be increased considerably without injurious effects; and while choral hydrate cannot be given in wafers, this new drug can be given in this form, thus obviating the bitter taste. It can also be given in the form of tablets. After some experiments on animals the authors administered it to human beings in doses of one quarter of a gram without effect. After 0·5 gram a patient with chronic gastric catarrh slept for two hours; another with rheumatism and heart disease, four hours; a neurasthenic woman with dyspepsia, five hours; a hysterical woman, seven hours. The drug took effect soon after administration in all these cases. On other patients, however, it induced no effect, so that the dose was increased to 0·75 grm., and later to 1 grm., and a more uniform influence was obtained. After recording several cases illustrating the good effects obtained, the authors remark that viferral is undoubtedly a good hypnotic, which they would place on the same footing as trional, sulphonal, veronal and hedonal. It produces no accessory symptoms, does not derange the heart even in the presence of severe valvular disease. It was seldom that any complaint was made of a slight heaviness in the head on the following morning. The stomach was never unfavourably affected. Most patients quickly fell asleep, and the sleep was deep and refreshing. The taste is not pleasant, but this can be obviated by giving it in wafers, which can be washed down with a little water or lemonade. The minimum dose for adults is from ·0·75 grm. to 1 grm., but it is advisable to increase the dose to 1·5 or 2 grm. in the event of insufficient efficacy. After long use a certain habituation to the drug appears to set in, so that it is recommended not to give it for any length of time. Viferral is indicated in all forms of nervous insomnia in which there are no severe condition of excitement or pain. It is probable, however, that in repeated doses it would act favourably on excited patients.

DISEASES OF THE EAR, NOSE AND THROAT.

The Eye and Nasal Disease.

Posey contributes an interesting article in the *Journal of the Eye, Ear and Throat Diseases* on "Some Ophthalmological Phases of Diseases of the Accessory Sinuses of the Nose" (March, 1905.) He directs attention to cases which he says are by no means infrequent, in which the ocular symptoms precede all others and for which the patient consults the ophthalmologist. The signs of sinus disease are so faint that the nose is never examined, or only very casually, and the fact forgotten or not known that a very active sinusitis may exist without any nasal discharge which is evident to the patient. The writer has collected a number of cases which showed eye changes and in which involvement of the nasal accessory sinuses existed. Group 1.—The cases considered under this category illustrate that diseases of the ethmoidal, sphenoidal and antral cavities may be evidenced by a moderate stasis in the circulation of the optic nerve, as indicated by slight ophthalmoscopic changes and by an interference with vision. Group 2, neuralgic conditions of the eye due to sinus disease from involvement of the fifth nerve. Group 3, œdema of the lids as a symptom of disease of the accessory sinuses. Group 4, paresis and actual palsy of the extra ocular muscles as a symptom of disease of the accessory sinuses. On account of the intimate relationship which the nerves supplying the muscles of the eyeball have with the external walls of the sphenoidal sinuses, and also because of the proximity of the muscles themselves to the cavities surrounding the orbit, the writer thinks that involvement of the extra ocular muscles not rarely follows; and he thinks it very probable the true origin of the paralysis in many of these cases is overlooked, they being attributed to rheumatism. Group 5, pseudo-lachrymal abscess.

The Cure of Asthma by Treatment of the Nose.

This vexed question was the subject of a discussion at the Oxford meeting of the British Medical Association, under the title of "Intra-Nasal Disease as a Determining Factor in the Production of Laryngeal and Pulmonary Affections (Spasmodic and Catarrhal)." (*Journal of Laryngology* for July.) The openers of the discussion were Dr. Greville MacDonald and Dr. Samuel West. The first named holds that he has 40 per cent. of cures of such cases, and classifies his cases into (1) those pointing to the relief or cure of asthma by removing obstruction to easy breathing or causing pressure; (2) those where the treatment of any other sort of abnormality in the nose is similarly successful; and (3) those where the mere cauterisation of mucous membrane in a comparatively healthy nose results in cure.

The opposite view is taken by Dr. West, who marvels at the number of cases of asthma some authors seem to have met with, who speak of having seen 300, 400, or 500 cases of asthma in a few years. His estimate of the number of true asthma cases among the 5,000,000 of people in London is 500. Surely a wonderfully low one. He concludes, however, that while there is a relation between asthma and nasal disease, that its frequency is by no means as large as the published statistics seem to show. And as regards the results of treatment, expresses his general agreement with the experience of Sir Felix Semon that though relief may be given in a few cases, the prospects of cure are small, and that asthma being a neurosis and the patient often highly neurotic, the effect of mental impression in estimating the result of treatment must be allowed for.

Treatment of Adhesions between the Palate and Wall of the Pharynx.

A simple device which has proved a complete success is described in the *Journal of Laryngology* for May, 1905, by Dr. T. K. Hamilton, by which this troublesome condition may be treated. Three out of the four cases published were of patients whose ages ranged from 3 to 13 years. After breaking down the adhesions the following plan was adopted to overcome the cicatricial contraction. A dental plate was fitted made of vulcanite, to which an obturator was attached at right angles, which curved upward and forward into the post-nasal space high enough to effectually prevent reunion of all the original synechiæ and at the same time allow of normal nasal respiration. If any uvula remains the obturator is fenestrated to allow it to hang down into the mouth. The writer states the plate is worn without any uneasiness or discomfort to the patient, who can take it out and replace it without any difficulty.

The Effect of Smoking on the Upper Air Passage.

In the *Practitioner* for July a series of articles is contributed on the "Effect of Tobacco in Health and Disease." Dr. Lambert Lack writes on the effect tobacco has on the upper air passages. He is inclined to think that the injurious effect of smoking on the upper air passages has been over-rated and that "relaxed" sore throat is far more often due to dyspepsia and alcoholism, and quotes Morell Mackenzie as saying there is no evidence to show that smoking produces chronic granular pharyngitis.

Lennox Browne, on the other hand, and Moritz Schmidt are quoted as believing that the use of tobacco is amongst the most frequent causes of affections of the throat. Lack does not deny that tobacco has a direct influence on the throat, but says that this bad effect has been exaggerated, and, further, that what ill effect tobacco has on the throat and nose are chiefly an indirect result due to dyspepsia or the systemic poisoning induced by smoking. Numerous inquiries among patients have led him to lay down the following propositions:—1. Cigarette smoking is the most harmful; cigarettes vary, Egyptians being the worse. 2. Cigars are the least pernicious form of smoking so far as the throat is concerned, and pipes occupy an intermediate position. 3. Other things being equal, the more excessive the smoking the more the smoke is inhaled, and the younger the patient the more likely are ill-effects to be seen. 4. These ill-effects are made worse by alcohol. It is strange no notice is taken of the effect of smoking on hearing.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Epsom College—The Registration of Nurses—Annual Meeting of the British Medical Association—The Royal College of Surgeons of Edinburgh.

FOUNDER'S Day was celebrated at Epsom College on July 29th, and in accordance with usual custom the occasion was taken advantage of to distribute to the boys the prizes won during the year. Epsom College has this year attained its jubilee, and the historic event has been appropriately and permanently recorded in its annals by the erection of a reading room, which has been provided by subscription among the governors and others interested in the school, and has been dedicated to Sir Constantine Holman, who for so many years has been the energetic treasurer of the institution. Epsom College is now recognised as one of the leading public schools in this country, but the special advantages it offers to the sons of doctors, and especially to such as are destined to become members of the profession, are neither widely known nor fully appreciated. The nominations of which Epsom has the patronage to different medical schools makes it a matter of considerable surprise that the number of medical practitioners who send sons there is so insignificantly small. This can only be explained on the theory that schools with a foundation are regarded as undesirable by the class on whose behalf they were originally endowed, and that the various exhibitions, bursaries, concessions as to fees, and other preferential advantages are looked upon as a species of charity from which the independent man shrinks. To such objections it may be replied that almost every great school in England—Eton, Wellington, Rugby, Charterhouse, Rossall, etc.—has a foundation of some sort which, in course of time, has become lost sight of in consequence of the wider scope which these institutions have attained than was ever anticipated for them at their commencement; and that the charitable aspect means nothing more than the expression of a generous wish on the part of pious founders to benefit those belonging to their own calling or profession whose circumstances are not such as to enable them to give to their sons an education worthy of the ambitions which they cherish for their success in life. There are now upwards of 280 boys at Epsom, but the accommodation provides for many more, and so long as vacancies remain to be filled the fact should be emphasised that the school was founded to benefit sons of medical men by providing them with a liberal education on moderate terms of payment, and by recognising ability and merit in the provision of nominations and scholarships, to further their future successful prosecution of professional study at the various universities and medical schools. There was a large attendance of the boys' parents and friends at this year's prize distribution, and the weather being favourable, the extensive playing fields and grounds looked their best. A short service was conducted by the Reverend Headmaster in the chapel at a quarter to three, after which an adjournment was made to the big schoolroom, where the principal event of the day's programme took place. The prizes, which were numerous and many of them valuable, were presented by Sir William Broadbent, Bart., who afterwards addressed to the boys counsels of wisdom and encouragement. He pointed out that the race of life was more often won by plodding and perseverance than by brilliancy and strength, and he called upon all the boys, but especially those who were prize-winners, to guard jealously the reputation of their school and to see that its fair honour was never tarnished by thought, act, or deed of any one to whom it had been an *Alma Mater.* A vote of thanks to Sir William Broadbent, proposed by Sir William Church and carried with acclamation, terminated this part of the proceedings, and, to the music of the College song, vigorously rendered by over 200 lusty and enthusiastic young men, the company filed out of the building to find their way to the Holman reading-room. Here a panegyric on Sir Constantine Holman was delivered by Dr. Galton, and, at the request of the Headmaster, Sir William Broadbent unlocked the door and formally declared the building open. The remainder of the afternoon was agreeably spent in witnessing a gymnastic display given by the boys on one of the College lawns. Their skill and nimbleness bore eloquent witness to the fact that physical education is not the least important subject in the Epsom curriculum.

The report of the Select Committee on the Registration of Nurses was issued on July 29th. The committee is agreed that it is desirable that a register of nurses should be kept by a central body appointed by the State, and that, while it is not necessary to prohibit unregistered persons from nursing for gain, no person should be entitled to assume the designation of "registered nurse" whose name is not upon the register. The committee recommends that this central body should be set up by Act of Parliament, and that its constitution should be defined in the Act, as was done in the case of the Central Midwives Board. The central body should consist of matrons, nurses, and representatives of the medical profession, of training schools for nurses, and of the public. The central body should admit to the register such nurses as have had a training at a recognised training school for nurses for a period to be determined by such body, and have satisfied their training school, whose certificate they must hold, stating that they are equipped with the knowledge and experience requisite, and that they are of good character. The committee further recommends that the central body should decide what constitutes a recognised training school for nurses, taking into consideration the number of beds, the accommodation for probationers, the facilities afforded for learning, and the general standard and conduct of the examination. For that purpose the central body should have the power of inspection, and the examination should be held at and by the training school. For the purpose of defraying the expenses of the central body a small registration fee of one guinea should be charged. The committee is impressed with the advisability of a period of three years' training, but it recognises that a stereotyped rule might operate unfortunately. It therefore recommends that the minimum period should not be fixed by Act of Parliament, but should be left to the discretion of the central body. With regard to existing nurses the committee is of opinion that those who can produce evidence satisfactory to the central body as regards both efficiency and character should be placed upon the register on payment of the registration fee. It is also of opinion that a separate register of "registered asylum nurses" should be kept by the central body. Nursing homes are deemed to include all homes and places conducted for profit where patients are taken in for treatment. By nursing institutions are meant those societies or bodies which supply nurses to the public. The evidence laid before the committee has led it to consider the licensing of such homes and institutions to be highly desirable. The license should be issued by the county or borough authority in whose area the home or institution is situated, and no such home or institution should receive the license unless it is conducted in conformity with requirements to be laid down by that authority.

The 73rd annual meeting of the British Medical Association was held at Leicester during the last week of July. There was an attendance of close upon 900 members, and the work done in the various sections was quite up to the average, from the point of view of educational value as well as from that of scientific achievement. When the Association was first formed two main objects were placed in the foreground of its programme—the advancement of Medical Science and the maintenance of the honour of the Medical Profession by the encouragement of friendly intercourse between its members. Both of these purposes are promoted and in great measure fulfilled by the programme carried out at each annual meeting. On Tuesday, July 25th, the proceedings of this year's session were inaugurated by a religious service held at St. Martin's Church, Leicester. The sermon was preached by Dr. Gore, the Bishop of Birmingham, from the following text: "Is any sick among you? Let him call for the elders of the church and let them pray over him, anointing him with oil in the name of the Lord: and the prayer of faith shall save the sick, and the Lord shall raise him up." At the conclusion of an eloquent and practical discourse a collection was taken, the proceeds of which were divided between the British Medical Benevolent Fund and the Royal Medical Foundation of Epsom College. In the evening Mr. George Cooper Franklin delivered the presidential address in the Opera House before a crowded audience. The president was supported on this occasion by Mr. Stephen Hilton, the Mayor of Leicester, who, in a short speech, offered a welcome to the Association in the name of the Borough of Leicester. The president then formally received a number of colonial delegates and foreign guests of distinction, and, having completed this duty, presented the Association's gold medal of merit to Sir Constantine Holman and Mr. Andrew Clark. The former has been for many years treasurer of Epsom College, and has done much for various philanthropic enterprises connected with the medical profession. The latter has recently laid down the office of chairman of the Council of the Association, which he held with success through the difficult period of the reorganisation of the Association. Amidst great applause, Dr. Astley Clark pinned on the president's breast a gold badge presented to him by the members of the Midland Branch, after which he rose to deliver his address. He began by sketching briefly the part which the town of Leicester had played in the history of the country, and gave a short account of the medical men of eminence who were brought up or educated in its neighbourhood. Among these was Theodore Goulston, a celebrated Fellow of the Royal College of Physicians in the early part of the 17th century, whose memory is kept alive by the lectures which he founded; another was William Cheselden, the great stone-cutting surgeon of Restoration days; a third was Sir Henry Halford, who was successively Physician-in-Ordinary to George IV, William IV, and Queen Victoria. Turning to the subject of medical education and practice, and the influence of the public on them, he said it seemed to him that too much attention could not be paid to the preliminary and general education of the prospective medical man. There could be no better training for him, in his opinion, than the old-fashioned study of Latin and Greek, and though it was useless nowadays to insist upon the inclusion of Greek, he looked forward to the day when it would be essential for a medical student not only to matriculate at a university but to take also a degree in arts. As for his professional studies, obstetric medicine did not take as prominent a position as in his opinion it should. When the student had successfully passed his final examination, the note of the day was specialisation. Medical men should make it their duty to warn their patients against patronising false specialism of any sort, whether professed by regular practitioners or by advertising persons. As examples of good and necessary forms of specialism he mentioned public health and lunacy work. He desired to express his firm belief that the British Medical Association would be doing a great work if it used its influence to secure fixity of tenure of office for all competent and well-educated medical officers of health. In conclusion, he adjured all medical men to keep high aims ever before them, and, reminding his hearers that the objects of the British Medical Association were the promotion of scientific knowledge and of the good repute and prosperity of the profession of medicine, he invited all young medical men to join in its efforts at an early period of their career. On Wednesday the 12 sections which divide among them the scientific work of the meeting began their sittings. In the section of medicine the treatment of sleeplessness and pain was discussed, the opener of the debate being Sir Thomas Lauder Brunton, who was followed by Professor Custing, of New York. The former described the onset of normal sleep as being due to a temporary accumulation of fatigue products near the ganglia, which serve as a means of communication between the higher centres and those of action. In the section of State medicine, Dr. Boobyer, its president, opened the discussion by an address in which he said that in our management of public health matters there was the same tendency to "muddle through" as in other forms of Government work; there was an absence of any general policy throughout the country, and hence he advocated the foundation of a society which should co-ordinate the views and aims of all bodies engaged in public health work. In the section of industrial hygiene, Dr. Dawson Williams and others discussed physical deterioration and its causes; compulsory general education was held to be one factor which acted detrimentally. In the section of surgery, after some introductory remarks by Sir William Ball, the president, a discussion on the surgical treatment of non-malignant diseases of the stomach was opened by Mr. Moyniham, of Leeds, and taken part in by Professor Saundby, of Birmingham, Dr. Finney, of Baltimore, Professor Hartmann, of Paris, Messrs. Mansell-Moullin, Eve, Bruce-Clark, of London, and others. In the section of psychological medicine, Dr. Urquhart, of Perth Asylum, dealt with the important subject of the heredity of insanity, and gave an interesting summary of his own studies embodied in a large number of genealogical tables based on a minute investigation of 1104 cases, and compiled during the last 20 years at Murray's Royal Asylum, Scotland. The section on tropical diseases was presided over by Dr. Rupert Boyce, and several papers of importance were contributed on subjects dealing with disorders peculiar to tropical countries. In the afternoon Dr. Henry Maudsley delivered the address in Medicine. He chose for his subject "Medicine, Present and Prospective," and dealt largely with the unity of body and mind and the mental power which one person could exercise over another. He thought it was not impossible that two brains could be so sympathetically attuned one to another that it would be possible for them to receive and transmit a subtle transfusion of mind without the mediation of sense. Considering that from an electric station waves of energy radiated through the viewless air to be caught up by a receiver thousands of miles distant, it was not inconceivable that the human brain might send off still more subtle waves to be accepted and interpreted by the fitly-turned receiving brain. He was inclined to think that in the treatment of disease by regular practitioners of medicine the influence of the mind on the body was somewhat overlooked, or that insufficient value was attached to it. The interaction of body and mind, whether favourable or unfavourable, was so absolute and constant that there was no action or habit of any kind which did not leave its impress on the individual. If there was one thing certain, it was that all wrong-doing, whether error or vice, was physically avenged on earth, not always, perhaps, on the individual wrongdoer himself, but somehow and somewhere on those vitally connected with him in the social system. The idea of punishment, personal or vicarious, was, from a scientific point of view, absolutely correct. Moral deterioration in the parent was sure to be visited upon the mental constitution of the children and the children's children. As time went on it became more than ever clear that the philosopher physiologist, Descartes, was right when he said that if mankind had ever to be perfected, the means must be sought in medical science. Later in the afternoon the members were received at a garden party given by the chairman of the Leicester Infirmary, Alderman Edward Wood, and Mrs. Wood, in the grounds of the Leicester Infirmary. Finally, they were summoned to attend an "at home" at the Museum Buildings, their hosts being Dr. Frank Pope, the president of the Midland Branch of the British Medical Association, and its members. On Thursday the sections resumed their sittings, and during the afternoon the address in Surgery was delivered by Mr. C. J. Bond, one of the senior surgeons of the Leicester Infirmary. His oration was based upon a study of "Ascending Currents in Mucous Canals and Gland Ducts, and their Influence on Infection," and in the course of his remarks he proceeded to show how surgical triumphs might throw light upon the nature of vital processes. He thought that from the operations which they performed daily, surgeons might learn much of the natural processes of disease and health, for though these operations were only undertaken with the object of saving life or of improving its conditions, they were in another sense nature-lessons in human physiology. By precise observation in their work they might add to the knowledge upon which all future progress must depend. He then detailed a number of organised observations which he had made in the course of his own duties, these proving that in all channels from the glands and other organs which serve to excrete the products of vital existence there is a kind of back current which may convey foreign matter to the interior of the body. In view of these facts he was inclined to think that in some cases, and especially those of pyogenic and tubercular disease, attention should be paid rather to mucous channels as routes of invasion than to the lymph and blood streams. Summing up his conclusions, he said that the burden of his remarks pointed to a necessity for the active recognition of the importance of all communications between the efferent canals of the body and the external world, and thus accentuated the value of personal hygiene and of true cleanliness. The revolution in modern surgery, which was one of the glories of the age, was due to careful observation of facts by a few great men, and without it the life-giving operations which were now performed would have been impossible. The rest of the afternoon was given up to social engagements. Among these was a garden party given in the grounds of the County Asylum by the president and the members of the Leicester Medical Society. About the same hour a second garden party was given by Mr. Maurice Levy, M.P., and Mrs. Levy at Humberstone Hall. In the evening the annual dinner of the Association took place in the Assembly Rooms, a long day being finally brought to a conclusion by an entertainment given by Mrs. Franklin and the ladies' committee in the King's Hall of the Grand Hotel. On Friday the discussions in the various sections were brought to a conclusion, and in the afternoon a number of members paid a visit, by invitation, to Belvoir Castle. A still larger number enjoyed the hospitality at Glenfield Frith of Mr. Samuel Faire and Mrs. Faire. In the evening they were again the guests of the Mayor and Mayoress of Leicester, who gave an evening fête upon a large scale at Abbey Park. By way of making some acknowledgment of the manner in which it had been received by Leicester, the Association caused a lecture of a popular character on "Rest and Fatigue" to be given in the Opera House. The lecturer was Professor Stirling, of Manchester, who illustrated his remarks by a lantern demonstration. The formal proceedings of the session terminated on Friday, and on Saturday excursions were undertaken to many places of interest in the near neighbourhood of Leicester. It may be safely asserted that this year's meeting has proved itself one of the most successful and enjoyable which the Association has held.

The Royal College of Surgeons of Edinburgh has recently been celebrating its four hundredth anniversary. The event was made the occasion, by the Edinburgh University, of a special graduation ceremony on July 22nd, when honorary degrees were conferred on a number of distinguished men. The proceedings, which took place in the McEwan Hall, were witnessed by a large assemblage. The first to receive the degree of Doctor of Laws at the hands of the Vice-Chancellor of the University was the French Ambassador, M. Cambon, who was introduced by Sir Ludovic Grant as one than whom none of the Corps Diplomatique at St. James's had higher claims to the goodwill, affection and reverence of British subjects. Since coming to this country his Excellency had laboured incessantly in the interests of concord and peace; and in particular he was to be congratulated on the part he had played in negotiating those recent agreements which promised to have such beneficial bearings upon the relations of France and the United Kingdom. The honorary degree of Doctor of Laws was also conferred upon the following representatives of the science of surgery:—Professor Irving Howard Cameron, Toronto University; Dr. Just Lucas Championnière, Paris; Professor Francesco Durante, Rome; Professor von Eiselberg, Vienna; Professor W. Stewart Halsted, Baltimore; Professor William Williams Keen, Philadelphia; Professor Lennander, Upsala, Sweden; Professor Sylvester Saxtorph, Copenhagen; and Professor Francis S. Shepherd, McGill University, Montreal. Replying in French on behalf of the European honorary graduates, M. Cambon spoke of the illustrious position of Edinburgh Unversity, of the traditional friendship between France and Scotland, and of the pleasure it had given him to visit Edinburgh. Dr. Keen, responding for the American recipients of the degree, said these academic occasions weaved the fabric of international comity and concord among the nations of the world.

INTUSSUSCEPTION.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—There is an unfortunate error in the report of my remarks at the last meeting of the Queensland Branch. I am reported to have said that the time to operate on an intussusception depends on the tightness of the constriction. What I really said was that the result of treatment depends on two factors—the tightness of the constriction, and the time it had lasted. My object in dealing with the matter was to urge that *immediate* reduction by water-pressure should be attempted, and that, should this fail, abdominal section should be performed *with as little delay as possible*.

I have read Dr. Clubbe's paper on this subject with great pleasure, and hope that it may lead more practitioners to recognise these cases as soon as they see them. This is nearly always possible, if they are carefully examined.—I am, etc.,

Brisbane. A. JEFFERIS TURNER.
Sept. 30, 1905.

CONSULTANTS AND GENERAL PRACTITIONERS.

(*To the Editor of the Australasian Medical Gazette.*)

Sir,—I have heard the statement made frequently by general practitioners, "Oh! Such and such a surgeon does all kinds of work without reference to the doctor in attendance upon a case." The following notes of a personal experience may be an explanation. On the 5th inst. I was consulted at my rooms by a young man who had a suppurating area beneath the deep fascia at the distal end of the anterior aspect of the thumb. I advised free incision. The patient said that he would like a general anæsthetic, as he had suffered much pain from the affection, and from two attempts which had been made with a lance to find the pus. There were a few scratches on the skin which had apparently reached the nerve termination, but which had not gone through the true skin. I replied, "Very well; I shall ask your doctor to give an anæsthetic, and I shall open it freely for you." I rang up the doctor to make an arrangement. I was much surprised to find that he at once adopted a hostile attitude, and refused point blank to give an anæsthetic. I then asked him what he wished me to do, as he had placed me in a most uncomfortable position. It was agreed that I was to do the operation on my own account, and he hoped that I would get paid. I took care to arrange for a fair fee beforehand, including in it two guineas for the anæsthetist. I had everything ready, when I was notified: "The family doctor has interviewed the patient and his mother; he has abused them soundly for daring, without his consent, to consult anyone, and for casting a slight upon him after all he had done for them."

The result to me is—(1) I lost my fee, and (2) my professional standing and conduct were probably attacked.

The sequel: The same afternoon that I had arranged for the operation the family attendant obtained the services of another medical man, they went to the patient's house and performed the necessary operation.

Saundby ("Medical Ethics," 1902 edition, p. 20, para. 3): "It must be conceded that every patient has the right to select his or her own medical attendant, and to change him at will." *Idem.*, p. 27 and 28: "Consultants are in the habit of seeing patients in their consulting rooms, either (*a*), (*b*), (*c*) at the desire of the patient . . . who, although under treatment, yet desires to obtain an independent opinion upon his case. . . . Under C., if a medical practitioner is in attendance, the consultant should point out the desirability of his being allowed to communicate with him."—I am, etc., JOHN B. NASH.

211 Macquarie-street N., Oct. 5th, 1905.

Australian Health Society.

THE annual meeting of the Australian Health Society was held on September 30th at the Assembly Hall, Collins-street, Melbourne. His Excellency the Governor, Sir Reginald Talbot, presided.

The annual report stated that during the year arrangements had been carried out for the amalgamation of the Society with the Association for the Prevention and Cure of Tuberculosis. The Association had to a considerable extent done its work of arousing public attention to the need of concerted action for the prevention of consumption, and the steady process of educating opinion further seemed suited to the methods of the older society. It was believed that this union would further the spread of hygienic knowledge and promote the cause of sanitary progress. The annual examination of State school pupils in the subjects of health and temperance, conducted by the council with the co-operation of the Education Department, formed an important branch of the society's work. The examination is now offered annually to the whole of the Victorian State schools. Boards of examiners are formed from the members of the council, and those competitors who secure 50 per cent. of marks receive the certificate of the Society. During the year just closed 16 schools sent candidates to the number of 125, of whom 43 passed. The certificates, and in some cases prizes, were now presented to the successful competitors.

Dr. W. P. NORRIS gave an address upon "The Infectivity of Consumption." He pointed out that amongst the things which induced the diseases were alcoholism, want of sunshine, lack of fresh air, and, in fact, anything which lowered the general health of the individual. His chief object, however, was to prove that consumption, as a disease, was absolutely under control, and that there need be no fear on the part of the public that immediate association with patients was dangerous. The real source of infection arose from the expectoration, and what the patient had to be taught was how to regulate his conduct so as to prevent activity on the part of the germs. Measles, scarlet fever, and similar diseases could not be controlled in the same way that consumption could; and the knowledge of this control ought to remove much of the fear which was now felt by the general public in regard to associating with people who suffered from this disease. He asserted that people in good health might mix with consumptives, nurse them during acute illness, and have them in their homes without fear of contamination, provided certain precautions were carried out. His predecessor, the late Dr. Gresswell, held these views, and had from time to time informed the public that there was no need for alarm in regard to the spread of consumption. The regulations, which had cleanliness and the general welfare of the patient, as well as others, in view, were very simple and easily carried out, so that it would almost amount to a criminal act on the part of the sufferer if they were not adhered to. Dr. Norris also contradicted the general supposition that consumption was necessarily hereditary, and stated that children born of consumptive parents would not inherit the disease. Being easy of control, there was no reason why consumption should not be ultimately eradicated.

Dr. Louis Henry spoke upon the dangers of dental decay. Bad teeth he regarded as a menace to the national health and a warning of degeneracy. Dental disease was on the increase, and being preventable ought to be stopped. A good set of teeth was the system's first line of defence against those many ills which originated in indigestion. Some of the most intractable cases of affections of the blood arose from self-poisoning, from the products of dental decay, and other conditions were certain forms of rheumatism, sore throat, many lung affections, and varied diseases of the heart, ear and eye, in addition to forms of gastric and intestinal troubles. Dr. Henry contended that one of the objects of the State should be the undertaking of a conservation of the health of the community.

In responding to a vote of thanks for presiding, Sir Reginald Talbot congratulated the Society upon the nature of its work, which he recognised to be highly educational in character. It was certainly an important part of education that children should be made acquainted with laws which affected their own health. At the same time, there was perhaps a tendency to ask the State to do a great deal, and to do very little ourselves. Much could be done by the public for their own safety.

The council for the ensuing twelve months was elected as follows:—President, Mr. Brodribb, M.A.; vice-presidents, Dr. Springthorpe and Dr. J. P. Ryan; hon. treasurer, Mr. Thomas Brentnall; hon. secretary, Dr. A. W. D. Robertson; members of council, Mrs. Edward Bage, Misses Burleigh, Judd, Moors and Niven; Mr. R. J. Alcock, Dr. Charles Bage, Dr. Henry, Dr. Jamieson, Professor Laurie, Dr. Lewers, Dr. Zwar, Messrs. Percy Oakden, Edwin Phillips and George E. Teague; secretary, Mr. J. G. Burrows.

Medico-Legal and Medico-Ethical.

Secret Commissions to Medical Men.—The Council of the Pharmaceutical Society of New South Wales forwarded to the Council of the New South Wales Branch of the British Medical Association the names of the doctor and chemist who are concerned in the following correspondence:—"Letter from Dr......... to Mr. ...., chemist.—Owing to your refusal to carry out any longer the arrangement we verbally entered into in April, I have been obliged to make other arrangements for my dispensing, so that the arrangement will terminate at the end of the present month. I shall be glad if you will arrange to settle up promptly on the 1st the accounts between us, and return to me the copy of my pharmacopœia, for the writing of which I shall be pleased to allow you any reasonable sum." This same doctor tendered to the chemist the following agreement:—"This indenture witnesseth that...... ....of........................, Chemist, and ...., Physician and Surgeon, of ...., on the other part, agrees as follows: (1st) (Druggist) to find (physician) in emergency dressings and antiseptics for use at his own surgery or at his patients' houses FREE of cost to (physician), and to supply nitric and acetic acid, Fehling's solution, Esbach's solution, and potas. permanganate for urine testing; (2nd) (Druggist) agrees to supply the patients of (doctor) with medicines and drugs prescribed by the said (doctor), and to pay the said doctor 50 per cent. of the cash received within seven days of each month by the said (druggist) from the sale of medicines to the patients of the said (doctor), and the profits from the sale of what is generally known as druggists' sundries and dressings other than the before-mentioned. Emergency dressings to be the sole property of (druggist) and not to be brought into the account of medicines and drugs prescribed by (doctor). In the case of club patients (druggist) agrees to supply medicines and drugs prescribed for them at a cost per member of three pence each week of the year, such sum to be collected by the said (doctor) or his representative, and paid over within one week of the 1st of each month." As the medical man is not a member of the British Medical Association the Council have no jurisdiction over him, but the Council passed the following resolutions:—(1) "That in the opinion of this Council the taking of commissions from, or sharing profits with, chemists by medical men is unprofessional and reprehensible in the highest degree." (2) "That this resolution be published in the *Australasian Medical Gazette.*"

A Question of Ethics.

The following case was submitted to the Council of the New South Wales Branch of the British Medical Association by Dr. A on October 14th, 1904, with a request that the decision be published in the *Australasian Medical Gazette*:—

A and B are colleagues on the same hospital staff, and on friendly terms. A is called in consultation by C in a case which A diagnoses as one of ruptured ectopic gestation, requiring operation. The husband thinks he can find the money, through relatives, to have the operation performed in a private hospital. In an hour or two one of these relatives telephones to C that the money has been arranged for, and directs him to have the patient removed to a private hospital, which is done. C informs A, and all arrangements are made to perform the operation next morning. Later in the day two friends of the patient call on B and inform him that A has refused to do the operation unless the fees are paid at the time, and asking B to perform it. B suggests that he should telephone to A about the matter. This the friends refuse to allow, and B thereupon undertakes to perform the operation, and telephones to C to that effect, but does not in any way communicate with A. A heard nothing from the husband after seeing him in the morning until 11 p.m., when he received a telephone message from him that "he had made other arrangements, and would not require A's services." Several hours prior to this a friend of the husband's had telephoned to A asking him if it were true that the fees must be paid at the time. A replied: "Yes, that was the rule." The friend said he would guarantee the fee, but would not pay it. A said that would not do. The friend said he would see about it. In the meantime A in no way countermanded the arrangements which had been made for the operation (anæsthetist, assistant, etc.), and the head nurse at the hospital told the husband that A fully intended to operate in the morning, and advised him to disregard the statement of his friends, and to telephone to A himself. He did not do so.

Question: Has B acted improperly in taking up the case without communicating with A and asking him if it were true, as stated by the friends, that he had determined to allow the woman to go without the operation necessary to save her life unless the fees were paid at the time, which it was also stated could not be done?

C's Comments.—Above is correct. In addition, A asked me to assist him at the operation, and did not countermand the request. B did not see the case in consultation with me before making arrangements to do the operation. I handed the patient over to A for operation, and considered she was admitted into the private hospital under his care. She has been under B's care ever since the above occurrence, and still is (October 27th). When B telephoned to me the night before operation, and asked me if I had any objection to his doing it, "I told him I considered the case had passed out of my hands, but would just as soon he should do it as anyone else if A was not to do it."

The sister of the private hospital says: "I told the husband that A fully intended doing the operation in the morning, and advised him to disregard what his friends told him, and to telephone himself to Dr. A."

B's Reply.—B was consulted by the husband of the patient and his friend, bringing a letter of introduction from a medical man at 9.45 p.m. on Tuesday, October 11th. They stated that arrangements had been made with A to operate, also that A had told them that it was an operation to save the patient's life, but he refused to perform the operation unless his fees were paid by 9 a.m. on October 12th. A further refused to accept the guarantee of the husband's stepfather to provide the money within a few days, and when asked by the stepfather what was to be done, A replied that he supposed she would have to be removed to a general hospital, remarking that the patient wasn't his patient, but was C's patient. B suggested that he would telephone to A; the husband and friend objected to this being done, and stated that they wouldn't allow A to operate now under any circumstances. B then communicated with C by telephone, and told him that the husband wished B to operate. C willingly agreed, and B told C to examine the patient on the following morning, and if she was fit to be removed to have her removed to another private hospital. B at the same time told C that the husband and his friend were going to see him immediately. B told the husband that he must communicate the altered arrangements to A at once, which he did within half an hour from the residence of C. C decided on the following morning that the patient wasn't in a fit state to be moved, and telephoned to B asking him to perform the operation at the private hospital where the patient was. B performed the operation as requested, with C's assistance.

B claims that the ethics of the profession have not been violated for the following reasons:—(1) The patient ceased to be A's when A refused to perform the operation except for cash payment; (2) the husband was well within his rights in asking another surgeon to perform the operation, especially when A refused to accept the guarantee of his stepfather, who is a man of good position in this city; (3) the husband stated to B that even if A wanted to operate he would not allow him to do so; (4) B, when his suggestion to telephone to A was not agreed to, informed the husband that he must communicate with A at once, and this is admitted in A's statement to have been done by 11 p.m., and as the husband and friend left B's house about 10.30 p.m., and had to get to C's house—a distance of more than a mile—it can readily be seen that little time was lost; (5) the patient was C's, and B operated with C's full concurrence and assistance; (6) B contends that if he had persisted in telephoning to A to verify the statements of the husband and his friend, after they had objected to this course being taken, he would have been offering these gentlemen (unknown to him, except through the introduction of a medical man) a gratuitous insult, by doubting their statements, and A has admitted in his statements that the essential facts in their statement of their dealing with A are true.

A's Reply to B's Statement.—A adheres to his original statement as absolutely correct. The letter of introduction from a medical man who had not seen the patient is of no value in the discussion. In saying to some friend of the husband's through the telephone that "his guarantee would not do," A did not for a moment think he should not see the *husband* again, nor have an opportunity of offering to do the operation without any fee, under the circumstances. If the patient ceased to be A's when A concluded the telephonic conversation mentioned above, why should B feel it necessary to tell the husband that he must communicate the altered arrangements to A at once? A does not deny the right of the husband to ask another surgeon "to operate" nor the right of B to operate, but thinks it was a grave breach of ethics for B to undertake to operate upon a patient in a private hospital, under the care of A, without reference to him, and without giving him an opportunity of meeting the charge of inhumanity which had been brought against him. The patient was A's, under his care in the private hospital, and being treated according to his directions beyond all doubt (*vide* C's and nurse's statements). B, his friend and colleague of nine years' standing, undertook to operate, without the slightest reference to him, and without seeing the patient, and he (B) now offers as his excuse that he considered "telephoning to A would have been offering two gentlemen (strangers to him) a gratuitous insult."

After considering the case, the Council declined to offer any opinion.

Thereupon B forwarded the statements of both parties, with further comments of his own, and without the knowledge of A, to the editor of the *British Medical Journal* for his opinion. This was published in the *British Medical Journal* for January 7th, 1904, and reads as follows:—

"On the case as submitted to us our opinion is: (1) That B was entitled to operate at the request of the relatives; (2) that no obligation rested upon him to communicate personally with A, he having arranged that the relations would do so, which is admitted they did; under the circumstances, A was under no obligation to operate if he was not satisfied that he would be paid, but on the other hand he has no ground of complaint if another surgeon was willing to accept the terms he had refused; (4) it was not necessary that B should be told the reason the relatives desired to change the operator, but he was at liberty to ask and might be guided by the reply; (5) the reason given in this case was not such as should have made B decline the case; (6) if A contemplated operating without a fee, he could have done so in a private hospital in which the patient was, and he need not have required the risky removal of the patient to the public hospital."

The Council of this Branch then received a request from Dr. A that the papers, without further comment, be submitted to the Council of the parent Association for an opinion. This was acceded to, and a letter, of which the following is a copy, was the result:—

British Medical Association,
Ethical Committee,
Medical Secretary's Office,
429 Strand, W.C.,
August 8th, 1905.

Dear Sir,—The Ethical Committee of the Association have carefully considered the matters on which the Council of the New South Wales Branch desired their opinion concerning a case in which a consulting surgeon took over the charge of a patient for operation, upon whom a colleague had just previously been requested to operate.

The Committee are of opinion that Dr. B ought to have communicated directly with Dr. A before consenting to take charge of the case.

I regret that owing to the necessity, first of waiting for confirmation of the minutes of the Committee by the Central Council, and to pressure of work connected with the annual meeting of the Association, I have been unable sooner to inform you of this decision.
—I am, yours faithfully,

J. Smith Whitaker,
Medical Secretary.

To the Hon. Sec., N.S.W. Branch,
121 Bathurst-street, Sydney.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, medical officer of health, reports:—Deaths of residents in the metropolitan municipalities (Sydney and suburbs) for the month of September, 1905, exclusive of patients in Gladesville and Callan Park Hospitals for the Insane, numbered 465. The annual death rate represented by this figure is 10·55 per 1000 of the estimated mean population for the year, which, when corrected for the metropolitan proportion of the deaths in all hospitals for the insane and benevolent asylums for the aged and infirm, becomes 11·40 per 1000. Diarrhœal diseases (diarrhœa, dysentery and enteritis) contributed 17 deaths, or four more than the quinquennial average mortality from this class of disease for September. The principal zymotic diseases, exclusive of diarrhœa, caused 11 deaths, of which 1 was attributed to measles, 5 to scarlet fever, 3 to diphtheria and 2 to typhoid fever. Influenza caused 8 deaths, cerebro spinal fever 1, and puerperal fever 2. Forty-one deaths were registered from phthisis, or one less than the quinquennial average for the month. Bright's disease caused 24 deaths, cancer 35, and diseases of the heart and blood vessels 70. Respiratory diseases were considerably less fatal than in August. Pneumonia was the cause of 50 deaths, and bronchitis of 26, as against 63 and 33 respectively during August. Deaths of infants under one year of age numbered 86, which corresponds to an infantile mortality rate of 70 per 1000 births. The chief causes of infantile mortality were:—Prematurity, 18 deaths; developmental diseases, 22 deaths; respiratory diseases, 16 deaths; enteritis, 11 deaths. Notified attacks of notifiable infectious diseases totalled 210, of which 114 were due to scarlet fever, 61 to diphtheria, and 35 to typhoid fever. Both the diphtheria and typhoid fever figures are above the average for the month of September.

Scarlet Fever.—According to a notification by the Health Board scarlet fever has been very prevalent in the metropolis. Fifty two cases were reported in the combined metropolitan districts during the latter part of last month, whilst in all the other portions of the State there were only eight cases, none of which was fatal. There were, however, two deaths in the metropolis. During the same period there were 17 cases of typhoid, of which two were fatal in the metropolis, whilst in the other portions of the State there were only 10 cases, of which two also were fatal. The metropolis also appears to have an abnormal proportion of diphtheria, 33 cases with one death being reported, whilst in the remainder of the State there were only 10 cases, one of which was fatal.

Plague Prevention.—In connection with the steps which have for some time past been vigorously prosecuted to prevent the spread of plague, the Sydney Harbour Trust Commissioners have furnished information showing the result of the scavenging and other operations which have been carried out between January 21st and September 1st. The tug Octopus has been constantly employed at night steaming the wharfs with a powerful steam jet, and also facings of wharfs and outlets of sewers. During the period mentioned the following refuse was removed from the harbour:—1084 dogs, 526 cats, 2153 rats, 644 fowls, 192 bags of fish, 244 bags of meat, 23 pigs, 16 eels, 7 sheep, 8 goats, 14 parrots, 14 hares, 9 calves, 158 rabbits, 3 lambs, and 3 wallabies.

Adulteration.—Dr. W. G. Armstrong, the city health officer, submitted a report to the health committee of the City Council last month on samples purchased by an officer of his department and certified to by the Government as being adulterated. These articles included chocolate cream, adulterated by the addition of 0·22 per cent. of oxide of iron; American chew candy, adulterated by the addition of 3·42 per cent. of paraffine; brandy and whisky below the legal standard; and milk adulterated by the addition of ¾ per cent. of water.

Queensland.

Bubonic Plague.—Dr. Burnett Ham, Commissioner of Public Health, reports:—The following are the particulars of the cases of plague and of suspicious cases of that disease reported from Townsville during September:—H.P.O., male, aged 23 years, a storeman in a produce store, was reported as a "suspect" on September 10th. The diagnosis of plague was confirmed after bacterioscopic and inoculation examination. The patient died September 12th. After death it was found that rats had been dying at his place of business. W.C., male, aged 27 years, employed as a book-keeper at a butcher's shop, was reported as "suspect" September 12th. The diagnosis of plague was confirmed, after bacterioscopic examination. The patient died September 14th. T.B., male, aged 40 years, a butcher, working at the same shop as W.C., was reported as "suspect" September 14th. The diagnosis of plague was confirmed after bacterioscopic examination. The patient died September 20th. Two cases, one a woman who had nursed one of the fatal cases, and the other a man living at Ross Island, and having an office near the butcher's shop referred to, were reported as "suspects" on September 14th and September 16th respectively. The diagnosis of plague was not confirmed after bacterioscopic and inoculation examinatoin. Oct. 14.—No case of plague has occurred in Queensland since that reported from Townsville on September 14th. Cairns.—Last case of plague discharged from hospital August 31st last, and the institution closed. No plague-infected rats found there since the three which were reported on July 15th last.

Destruction of Garbage.—An official inspection of the new destructor was made last month by the Toowong Council and members of other local authorities. The garbage destructor consists of a furnace constructed in such a manner that, while there is complete combustion of the refuse, the gases arising from the burning are not allowed to pass away into the chimney before they have been conducted through another chamber or secondary furnace, where they are purified by the flames, and so rendered harmless, and are robbed of ill odours. The main furnace is 14 ft. long by 8 ft. 4 in. wide and 4 ft. high, with a fire grate of about 3 ft. square. Above or behind the furnace is a drying hearth 8 ft. by 7 ft. 6 in. All the rubbish collected, with the exception of large tins, is hoisted by means of a winch to a hopper at the top of the furnace, and fed thereinto as required. The furnace, while consuming the garbage fed into it, also dries that on the hearth, preparing it for burning. Those present made an inspection of the nightsoil destructor plant, which was at work, though the usual unpleasant evidences of such a business were entirely absent. From figures supplied, it appears that during 1904 the contents of 63,112 pans had been put through the destructor, which, taking them at an average of 40 lb. per pan, is equal to 1127 tons of material treated. The plant laid down has cost about £2000, but the work has been carried on at a profit, so that now, after writing off an amount annually for depreciation, the really efficient plant stands at only about £600. The collection of the nightsoil and garbage is done by contract, but the destructor is carried out entirely by the council by day labour.

Victoria.

A Pure Food Bill.—The Pure Food Bill, recently introduced into the Victorian Parliament, provides that no person shall sell beer which contains more than a hundredth part of a grain of arsenic per imperial gallon, or that contains any lead, copper, strychnine, cocculus indicus, picric acid, or any substance which is not a normal and proper constituent of beer or a necessary ingredient in its manufacture. In future it will be an offence to make or sell toys coloured with varnish that contains arsenic or any other substance in a quantity exceeding that prescribed by regulation.

South Australia.

Central Board of Health.—At a meeting of the Central Board of Health, Adelaide, held on September 20th, a letter was received from a correspondent urging that steps be taken at the earliest opportunity to establish underground urinals in various parts of the city on similar lines to those of Melbourne and Sydney. The secretary, Local Board, Adelaide, furnished a report from the officer of health, in reference to certain officers who had been in employment at the Lands Titles Office, and had since died of consumption, which showed that whatever might have been the source of infection in the case of the four officers who had died, there was no reason to suppose that the books and documents used by them were a source of danger at present. That the handling of books by officers suffering from phthisis constituted a danger to others in the office using the same books was undoubted, and the risk could only be avoided without hardship to the patient by the establishment of a fund in the service, whereby he might be at once removed to a sanatorium for curative treatment. Two of the officers mentioned had resided in the city and two in the suburbs, and at the time of their illness notification of the disease was not compulsory, nor was the present Health Act in operation. Attention had been drawn to danger to the public who search in the office. This may arise (1) from certain of the public suffering from consumption handling documents in the office; or (2) from those documents coming from outside sources into the office. The officer of health stated that it was difficult to suggest a remedy, because it was impossible for those who controlled the office to distinguish either persons or sources which might be dangerous. Certain rules might be drawn up, regulating the use of documents by the public, such as prohibiting the use of fingers moistened in the mouth, spitting on the floor, and so forth; and where the source of documents could not be certified as safe, some process of disinfection should be carried out on arrival at the office. On visiting the offices he had found them in need of immediate cleansing. The chief problem in the large rooms and vaults where the documents were kept was the dust difficulty, and he was of opinion that some better system than the present one might be evolved, in the direction of greater protection from dust or of removal of the dust at regular intervals.

Tasmania.

Vital Statistics.—The Government Statistician's report on the vital statistics of the registration districts of Hobart and Launceston for August, 1905, shows that during the month 150 births—80 males and 70 females—were registered. This is an increase of 3·2 as compared with the average of the births registered in August during the last five-yearly period. To every 1000 of the population of the two districts the proportions of births registered were as follows:—For Hobart, 2·58; for Launceston, 2·79; all, 2·66. The deaths registered in August in Hobart and Launceston numbered 70—37 males and 33 females; 26 deaths, or 37·14 per cent. of the whole, took place in public institutions. The total number of deaths registered in the two districts during August, 1905, shows a decrease of 13·6, as compared with the average number of deaths registered in August during the last five-yearly period. To every 1000 of the population of the respective divisions the proportions of deaths registered were as follows:—Hobart, 1·29; Launceston, 1·16; all, 1·24. The deaths under five years of age numbered 17, or 24·28 per cent., of which 14 were under one year of age; the deaths between 5 and 65 years of age numbered 27, or 38·58 per cent.; and the deaths 65 years and upwards numbered 26, or 37·14 per cent.

HOSPITAL INTELLIGENCE.

Hobart Hospital.—At the ordinary monthly meeting of the Hospital Board held last month the visiting committee reported that since the last regular monthly meeting of the board of management the visiting committee has met at the hospital on four occasions. The grounds, buildings, wards, etc., had been regularly inspected, and owing to the number of patients under treatment being considerably below the average for this time of the year, advantage was taken of the fact to have several of the wards thoroughly disinfected and cleaned. The quality of the provisions supplied to the hospital had been carefully examined from time to time and found satisfactory. The salary abstracts and accounts for the month of August, amounting in all to £537 6s 8d, were examined, found correct, and passed for payment. The fees recovered during the month amount to £72 2s 6d, as compared with £102 11s collected during the corresponding month of last year. During the month 190 patients have been treated in the hospital, discharged 114, died 10, leaving in the institution on 1st September 40 males and 26 females. The daily average number of occupied beds was 79, as compared with 92 during August, 1904, 73 in 1903, and 93 in 1902. In the out-patients' department 147 new cases were treated, casualties 25; total attendances, 572. A cheque for £17 11s was received as a contribution from the Chinese residents of Hobart, and a vote of thanks to them was passed.

Royal Alexandra Hospital, Sydney.—At the monthly meeting of the board of management of the Royal Alexandra Hospital, the house committee's report showed that there had been admitted during the month to the general hospital 52 patients, to the diphtheria branch 12, and to the convalescent cottage, Camden, 4; discharged from the general hospital 56, from the diphtheria branch 10, and from the convalescent cottage, Camden, 7; deaths in the general hospital, 4; in the diphtheria branch 2, and in the convalescent cottage, Camden, none; remaining in the general hospital 39, in the diphtheria branch 3, and in the convalescent cottage, Camden, 10; that there had been 2574 attendances of out patients during the month, 590 of these being new cases; that the total expenditure during the month had been £327 11s 11d, while the receipts from patients' payments were £47 14s 6d; that satisfactory reports were received from the lady visitors for the past month.

Queen Victoria Hospital for Women, Launceston, Tasmania.—At the annual meeting of the Queen Victoria Hospital for Women held last month the report of the committee stated that a very satisfactory year's work had been done, and, although in sore straits at times during the winter months, when the greatest strain was on the management, everything really ended well. Many comforts had been added since the opening of the Dunorlan-Noake wing. One hundred and eighty-seven patients had been treated during the year; 18 in the surgical wards; the others were maternity cases; 166 infants were born; of these 85 were boys, 81 were girls. Five infants were admitted for treatment and diet, and two infants were stillborn. No adult deaths were recorded. During the past year the work had been marked with great success. The sliding scale of charges is still used with extreme care, every case being inquired into. The following amounts have been paid by patients treated:—Sixty-three paid £1 weekly; 40 paid 15s; 14 paid £1 5s; 13 paid 10s; 8 paid £1 10s; 7 paid £2; 3 paid £3 3s; 30 were treated free of any charge. The expenditure for maintenance and housekeeping showed a large increase, but it was explained that over £30 was expended in household linen, and taking into consideration that during the most severe weather, when light and fuel are the heaviest items, the hospital was taxed to its utmost capacity. The smaller wards of the new hospital give increased comfort to the patients, but largely increase the expenditure in maintenance. The £100 received from Government at once paid off the furniture overdraft outstanding at the end of the last financial year. There had been an outlay of £27 1s 4d for furniture. The new course for trained nurses is already in force, and three nurses holding certificates from general hospitals are now taking the six months' midwifery course, and although surgical work is done in the hospital, the committee issue only a midwifery certificate. Dr. Tasman Wilson resigned from the hon. medical staff when leaving Tasmania. Dr. Skinner was appointed to take his place. Dr. Allport takes Dr. Pike's place on the staff, whilst Dr. Pike remains on as consultant. Dr. T. Wilson gave some of the lectures, and Dr. Parker was the lecturer for the remainder of the term.

Coast Hospital, Little Bay, N.S.W.—From the annual report of the Coast Hospital for the year 1904 we learn that the number of patients remaining on December 31st, 1903, was 292: 3439 patients were admitted during the year. The total number under treatment during 1904 was, therefore, 3731, which represents an increase of 94 patients on the total number under treatment during 1903. Of the 3731 treated, 3433 were discharged, while 193 died; the mortality rate was 5·17 per cent. The average daily number of occupied beds was 305·16, an increase on 1903 (when this number was 300·76) of 4·4. The highest average (319.7) occurred in October, the lowest (280·09) in January. *Enteric Fever.*—The number treated (including 15 remaining in hospital on December 31st, 1903) was 193, as against 188 during the previous year. Deaths, 24, or 12.44 per cent., as against 10·64 per cent. for 1903. *Measles* (including measles and broncho-pneumonia).—Treated, 90 (including 9 remaining in hospital on December 31st, 1903), as against 65 in 1903, an increase of 25. Death, 1, or 1·11 per cent., as against 1·52 per cent. in the previous year. *Chicken-pox.*—Four cases treated in 1904, as against 3 in 1903. All recovered. *Scarlet Fever* (including complications, as scarlet fever with diphtheria and scarlet fever with enteric fever).—Treated 416 (including 45 remaining in hospital on December 31st, 1903), as against 656 treated in 1903. Deaths, 11, or 2·64 per cent., as against 3·2 per cent. in 1903. *Diphtheria.*—Treated, 306 (including 5 remaining in from previous year), as against 93 for the year 1903. There were 11 deaths (3·59 per cent.), as against no deaths in 1903. *Bubonic Plague.*—Ten cases and 4 deaths, or 40 per cent., as against 2 cases and no deaths in previous year. *Whooping-cough* (including whooping-cough and broncho-pneumonia and whooping-cough and diphtheria).—Treated, 41, including 1 remaining in from 1903, as against 14 in previous year, an increase of 27. Deaths, 4, or 9·9 per cent., as against 21·4 per cent. in 1903. *Mumps.*—Forty-one cases treated, as against 13 in 1903, of whom all recovered. During the year a pathological room has been erected, hot and cold water and the necessary fittings have been introduced into the wards at the main hospital, and an Equifex disinfector placed in position. *Operations.*—Four hundred and sixty operations have been performed, including several major operations. This is noteworthy in view of the fact that there are no honorary visiting surgeons, and only a medical superintendent with three junior medical officers for a hospital containing over 300 beds, including a large number of cases of infectious diseases. The gross expenditure for the year was £20,997 11s 3d. The average annual cost per bed was £67 6s 3½d. This amount is again less, though by a small sum only, than the corresponding amount for the preceding year (£67 9s 5d). Dr. A. G. Henry continued in the post of medical superintendent; Dr. W. W. Stevens continued as senior medical officer; Dr. Ramsay Sharp resigned the position of junior medical officer on September 4th, and Dr. D. Wallace was temporarily appointed to his duty; on July 11th Dr. W. H. Elworthy was appointed third medical officer.

St. Margaret's Hospital for the Insane, Sydney.—St. Margaret's Hospital for the Insane, Ryde, which is controlled by the Sisters of the Little Company of Mary, has recently been enlarged. The hospital was founded by the late Mr. T. Dalton, M.L.C., who spent £7000 on the land and the original building, the foundation-stone of which was laid on December 8th, 1891, and the opening ceremony was performed on April 3rd, 1892. In 1895 additions and improvements were carried out at a cost of £3000. The latest enlargement cost £4000, bringing the total cost up to £14,000. The institution is now considered thoroughly up to date, and all modern improvements have been introduced. At the ceremony of opening the additions the debt was stated to be £3085, and the donations received amounted to about £280, of which Mr. T. J. Dalton gave £100.

Port Pirie Hospital, S.A.—A deputation recently waited on the Chief Secretary, asking that a local board of management should be appointed to the control of the Port Pirie Hospital. The speakers all contended that an alteration was absolutely necessary, as certain sanitary arrangements existed at the hospital which would not be tolerated in any house in Port Pirie. Some of the things at the Port Pirie Hospital were simply a disgrace compared with what existed in the Adelaide Hospital. The operating room was made a general domestic room. Ulcerated legs and all sorts of diseases were treated there, and when the air was contaminated with filth perhaps a man was brought in to have his leg amputated. Another speaker said that owing to the bad sanitary arrangements fever was practically flowing all over the town. The Chief Secretary, in reply, said when he was travelling in the north some time ago he visited Port Pirie Hospital. The institution was not what it ought to have been. If a system could be brought about to remedy this it would be advantageous; at the same time the financial aspect, from the Government point of view, had always to be considered. Last year £1880 was spent in maintenance alone. He regretted that in such a big district only about £60 was contributed in fees and subscriptions. At the same time he recognised that it was the duty of the Government to provide sufficient hospital accommodation in that and other districts. He thought that with a board the institution would be run more economically. With his own eyes he had seen that many of the complaints made were true, and the drainage was undoubtedly very defective. The Government would give the case every consideration.

THE BATTLE OF THE CLUBS.

Crisis at Grafton, N.S.W.

THE various Friendly Societies in Grafton are amalgamated into a union of about 950 members, and employ three doctors paid annually at the rate of 25s per member, which includes medical attendance and medicine; of this, 5s has hitherto been paid to the chemist. The three doctors have been Drs. T. J. Henry, Ventry Smith, and Earle Page. Dr. Henry finding his position untenable from the number of his patients and the conditions of contract, has resigned, and Dr. Page likewise; but these two gentlemen submitted certain alterations in the contract to the lodges, and undertook to resume their positions in the lodges if these alterations were agreed to.

These were:—1. The recognition of the eligibility of every medical man of good repute and legally qualified, residing in Grafton, to act as lodge doctor. 2. The removal of the obligation (at present existing) of attending members' wives who have been refused medical certificates of health. 3. The fixing of a schedule of fees for operation (the only operation at present being paid for is curetting, at £3 3s). 4. Power to limit each medical officer's list to 300 members, if desired. 5. The maintenance of the present rate of remuneration to the medical officer at 20s per annum. (The chemists have insisted on an increase of 3s per member per annum for medicines, thus reducing the doctor's fee to 17s.)

The lodges have refused to discuss these amendments, and simply accepted the resignations of the medical officers. They have decided to call for applications under the old rules in Sydney, Melbourne, and Brisbane, to be in by November 24th.

We hope that any medical man who may contemplate applying for these positions will pause and consider the situation, and have sufficient respect for himself and for his profession to prevent him accepting a position which would only lead to his professional and social ostracism. We hope, further, that the lodges will think twice before they persist in maintaining their present attitude, which must inevitably lead to their losing the services of such able medical officers as they have had in the past, and which they will not probably be able to replace.

Sydney and Suburban Provident Medical Association.

THE annual meeting will be held at 121 Bathurst-street, Sydney, on Tuesday, October 31st, at 8.30 p.m. Business: Election of office-bearers for the ensuing year; to be followed at 9 p.m. by a meeting of the medical profession to receive the report of the working of the Association during the past year.—A. ACLAND O'HARA, Hon. Sec.

MILITARY INTELLIGENCE.

Medical School of Instruction.—At the school of instruction for officers of the Army Medical Corps recently held in Adelaide the programme, which was carried out under the personal direction of Surgeon-General Williams, C.B., embraced a complete instructional scheme, and the work was an unqualified success. Twelve out of 14 officers attended the school. The medical officers went through the whole of the detail of stretcher, waggon, and hand-seat drill, and they have mastered every point in the operations. They are competent now to instruct in every department of field work. The lectures delivered by Surgeon-General Williams embraced mobilisation, organisation, establishment, equipment, and transport-bearer companies, and field hospitals, an explanation of the active dutes of different officers, and of correspondence. Warrant-Officer Morley, of the Victorian Army Medical Corps, was drill instructor, and had charge of the details. Warrant Officer Lindsay, of the local corps, has also done good work. The officers themselves

A DOCTOR'S Set of Throat and other Instruments for Sale; also Doctor's Fitted Bag and Medical Books.—Imperial Hotel, Wynyard-square, Sydney.

FOR SALE, Röntgen Ray Apparatus, in South Australia, complete, good as new, British maker; for sale on account of death of owner; will accept £40.—ANDREW REED, 11 Macquarie-place, Sydney.

realise that they have gained important knowledge. The new depôt in South Australia is complete in every detail, and when all the equipment carriages and general stores shall have arrived it will be second to none in the Commonwealth. Surgeon-General Williams states that all that is required to complete the Army Medical Corps in South Australia in accordance with General Hutton's scheme is a small permanent *personnel*, say a sergeant instructor and a non-commissioned officer in charge of stores, a mounted bearer company (25 all ranks), and half-bearer company for the field forces (25 all ranks), practically 52 men.

PERSONAL ITEMS.

Dr. Richard Russell Frost has resigned his appointment as medical officer and justice of the peace at Onslow, W.A.

Dr. A. S. Patton, late of Muswellbrook, N.S.W., has removed to Aramac, Queensland.

Dr. Guy Griffiths has left Gundagai, N.S.W., and settled at Gordon-road, Gordon, North Sydney.

Dr. Cyril E. Corlette has removed from 28 College-street to Lyons-terrace, Liverpool-street, Hyde Park, Sydney.

Dr. W. Newlands, who lately arrived from England, has commenced practice in George-street, Dunedin.

Dr. Lindo Ferguson, who has been on a trip to the Islands, Sydney and Melbourne, has returned and resumed practice at Dunedin.

Dr. F. S. W. Zlotkowski has returned from a trip to Europe, and has commenced practice in Sydney.

Dr. F. H. Cole has been elected president of Melbourne Medical Association for the current year.

Dr. C. L. Handcock was on September 27th installed as a worshipful master of the Goulburn (N.S.W.) Masonic Lodge of Australia, No. 58, and Lodge Duke of Edinburgh No. 76.

Dr. Maxwell, the resident surgeon of the Geelong Hospital, Victoria, has decided to relinquish his position and to take a sea trip for the benefit of his health.

Dr. Wilson, late of Campbelltown, N.S.W., has left on a trip to Scotland. Dr. W. B. Dight, late of Riverstone, has succeeded to his practice.

Dr. Clouston, a recent graduate of Sydney University, is at present medical officer at the Cataract Dam works.

At the conclusion of the railway ambulance examinations for the season, held at Goulburn, N.S.W., a vote of thanks was accorded Dr. Woodward, the railway medical officer, for his efforts to promote ambulance knowledge throughout the State.

Drs. T. J. Henry and Earle Page have been elected on the committee of the Grafton Chamber of Commerce.

Dr. Hugh Busby, late of Gulgong, has succeeded to the practice of Dr. Edmunds at Bathurst, N.S.W.

Dr. R. S. Rogers, of Adelaide, has been re-elected president of the Field Naturalists' Section of the Royal Society of South Australia.

Dr. J. C. Verco, who has been re-elected president of the Royal Society of South Australia, has offered to give £1000 toward the formation of an endowment fund, provided that the additional sum of £2000 should be obtained elsewhere.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Jewell, C. C., M.B., M.R.C.S., to be Junior Medical Officer in the Lunacy Department.

Sproule, Robert, M.B., B.Ch. (Edin.), to be Government Medical Officer and Vaccinator at Tenterfield, *vice* W. T. J. Newton, resigned.

VICTORIA.

Barker, Walter Herbert, to be Medical Superintendent of the Hospital for the Insane at Kew.

Godfrey, Clarence George, to be Medical Superintendent of the Hospital for the Insane at Ararat.

MacFarlane, Aylmer Alexander, L.R.C.P., etc., to be Medical Superintendent of the Ararat Hospital for the Insane in the absence of Clarence George Godfrey, M.R.C.S.E., etc.

Mullen, William Lowell, to be Medical Superintendent of the Hospital for the Insane at Yarra Bend.

Zichy-Woinarski, Gustave Henry S., M.B., etc., to be Deputy Medical Superintendent of the Hospital for the Insane, Beechworth.

The persons named hereunder to be Public Vaccinators for the districts respectively mentioned, viz.:—

Barnard, Charles Edward, M.D., South-Western, *vice* Thomas Stang, L.R.C.P., resigned.

Ffrost, Albert Ernest, M.B., Northern, acting during the absence of William Howard James, M.B., on leave.

Green, Frederick William, M.B., North-Western, *vice* J. J. McEniry, L.R.C.P., resigned.

Günst, Charles Werner, L.R.C.P., North-Eastern, *vice* John Tuthill, L.R.C.S., resigned.

Wilkinson, Arthur Norris, M.R.C.S., North-Eastern, *vice* C. A. Altmann, M.B., resigned.

Officers of Health:—

Barrett, William Amherst Henry, L.R.C.P., Tungamah Shire *vice* Martin Moylan Lyons, M.B., resigned.

Edwards, Frank Payne, M.B., Karkarooc Shire, West Riding.

Wilkinson, Arthur Norris, M.R.C.S., Bright Shire, *vice* Charles August Altmann, M.B., resigned.

SOUTH AUSTRALIA.

Hart, Alexander Watson, L.R.C.P. & S. (Edin.), of Minlaton, to be a Public Vaccinator.

The following gentlemen have been appointed to act as Medical Officers to attend to destitute persons and aborigines within the undermentioned districts, viz.:—

Acton, F. C., Redhill Township and radius of 12 miles.

Dawkins, S. L., Alma Plains.

Maher, James P., Munno Para East.

Shanahan, P. F., Hawker Township and radius of 15 miles (ex aborigines).

WEST AUSTRALIA.

Macmillan, John George, to be Officer of Health for the Kalgoorlie-road District.

The undermentioned persons to be Public Vaccinators for the districts set opposite their names respectively:—

Foster, Bryan, Mount Morgans.

Loughran, Gerald, Mount Malcolm.

McNaughton, John, Peak Hill.

Honorary Appointments to the Medical Staff of the Perth Public Hospital:—

Physicians.—Geo. F. McWilliams, M.B., B.S. (Melb.); Henry A. Leschen, M.B., Ch.M. (Edin.); Harvey E. Astles, M.R.C.S. (Eng.), M.D.

Physician to Out-Patients.—Geo. Annand, M.D. (Melb.), M.R.C.S. (Eng.).

Surgeons.—Frank Tratman, M.R.C.S. (Eng.), M.D. (Lond.); Athel. J. Saw, M.D. (Camb.), M.R.C.S. (Eng.); William Trethowan, M.B., M.S. (Aberd.).

Surgeons to Out-Patients.—Allen E. Randell, M.B., B.S. (Melb. and Adel.); Arthur J. Nyulasy, M.R.C.S. (Eng.).

Gynæcologist.—W. Withers Ewbank, M.R.C.S. (Eng.).

Ophthalmic Surgeon.—Henry T. Kelsall, M.D. (Lond.), M.R.C.S. (Eng.).

Ophthalmic Surgeon to Out-Patients.—Albert E. Martin, F.R.C.S. (Eng.), M.D. (Durham.)

Surgeon for Ear and Throat.—Ormsby Burkitt, L.R.C.S., L.R.C.P. (Irel.).

Surgeon and Physician for Diseases of Children.—Edward C. Officer, M.B., B.S. (Melb.).

Dentist.—Dr. Wilkinson.

Gurdon, Edwin John, to be Acting District Medical Officer at Derby during the absence on leave of R. Wace.

TASMANIA.

Jones, Walter W., to be Local Health Officer for the district of Oatlands.

NEW ZEALAND.

Siedeberg, Emily H., has been appointed Medical Superintendent to the St. Helens Maternity Hospital, Dunedin.

The undermentioned persons to be Public Vaccinators for the districts set opposite their names respectively :—

Bennett, Agnes Elizabeth Lloyd, M.B., M.S. (Edin.), district of Wellington.

Sutherland, William, M.B., B.Ch. (N.Z.), districts of Gabriel's and Waitahuna.

Vowell, Charles Martin, M.R.C.S. (Eng.), L.R.C.P. (Edin.), district of Te Awamutu.

Young, David Hastings, M.B., M.S. (Edin.), district of Tokomairiro.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as Legally Qualified Medical Practitioners in their respective States :—

SOUTH AUSTRALIA.

Holmes, Horace Isles, M.D. (Melb.), 1904.
Sutherland, Betram Milne, M.B., Ch.B. (Melb.), 1903.

WEST AUSTRALIA.

Dowling, Francis Joseph, L.S.A. (Lond.), 1855; M.R.C.S. (Eng.), 1855; M.B. (Lond.), 1856.
Holmes, John, L.R.C.P. (Lond.), M.R.C.S. (Eng.), 1897.

NEW SOUTH WALES.

Johnson, Alex. Gordon, M.B., M.S. (Aberd.), 1889.
Larwill, John, L.R.C.P. (Edin.), 1894; L.R.C.S. (Edin.), 1894; L.F.P.S. (Glasg.), 1894.
Long, Edwin Walter, M.R.C.S. (Eng.), 1880; L.S.A. (Lond.), 1884.
McDowall, St. Andrew William Logan, M.B. (Syd.), 1905.
Peet, Henry, M.B. (Lond.), 1898; D.P.H. (Camb.), 1901.
Purchas, Frederic Maurice, M.B., M.S. (Edin.), 1896.
Sutton, George, M.B., Ch.B. (Melb.), 1904.
Weld, Elizabeth Eleanor, M.B. (Adel.), 1901; M.B., B.S. (Melb.), 1901.

For Additional Registration :

Kay, Stuart, M.Ch. (Syd.), 1905.
Irwin, William, F.R.C.S. (Edin.), 1904.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

GREY.—On October 2nd, at Boulder City, West Australia, the wife of Dr. William Charles Grey—a son.

HOWSE.—At 50 College-street, Hyde Park, Sydney, the wife of Oswald Howse—a son.

L'ESTRANGE.—On September 25th, at Charleville, Queensland, the wife of Dr. H. L'Estrange—a son.

PARSONS.—On September 15th, at "Worton," Camberwell, Victoria, the wife of Dr. Warren Parsons—a son (Warren), posthumously.

PURSER.—On October 2nd, at "Valdemar," The Boulevard, Lewisham, Sydney, the wife of Cecil Purser, M.B., Ch.M.—a son.

SCOTT.—On September 13th, at "Braid," Auburn, Victoria, the wife of J. Alexander Scott, M.B., M.S.—a daughter.

SYME.—On August 31st, at 19 Collins-street, Melbourne, the wife of G. A. Syme, M.B., Ch.M., F.R.C.S. (Eng.)—a daughter.

MARRIAGES.

BOYD—HAYES.—On September 14th, at "Gifan," Birregurra, Victoria, by the Rev. Charles Lowe, Thomas Hugh Boyd, M.B., F.R.C.S., of Richmond, Melbourne, third son of James Boyd, M.D., Bendigo, to Annie Esh, fourth daughter of Edmund H. Hayes, "Gifan," Birregurra.

HALL—EWAN.—On October 4th, 1905, at St. Stephen's Church, Phillip-street, Sydney, by the Rev. John Ferguson, Cuthbert Hall, M.D., of Parramatta, N.S.W., to Mary Blair, third daughter of the late Mr. James Ewan and of Mrs. Ewan, Glenleigh, Penrith, N.S.W.

WEBSTER—WISHART.—On September 4th, at the Holy Trinity Church, Herberton, Queensland, by the Rev. A. Vaughan Williams, Percy Marshall Webster, of Herberton, eldest son of the late Marshall Hall Webster, M.R.C.S. (Eng.), to Georgina, second daughter of the late Archibald Wishart, of Herberton.

DEATHS.

McDONAGH.—On September 26th, at her son's residence, 14 College-street, Sydney, Isabella Maria, relict of the late Dr. P. McDonagh.

O'DONNELL.—On September 27th, at private hospital, East Melbourne, Dr. G. P. O'Donnell, late of Bendigo, Victoria.

BOOKS RECEIVED.

A Laboratory Guide in Bacteriology: A new book for Students, Teachers and Practitioners. By Paul G. Heinemann, Fellow of Bacteriology, University of Chicago. Vol. vii. 143 pp. 12 mo., cloth; price, 6s 6d net. Chicago Univeristy Press. 1905.

The following three volumes have been received from Messrs. W. B. Saunders & Co., of Philadelphia and London; Melbourne, Mr. James Little :—

1. American Edition of Nothnagel's Practice—Malaria, Influenza and Dengue. By Dr. Julius Manneberg, of Vienna, and Dr. O. Leichtenstern, of Cologne. Edited, with additions, by Major R. Ross, F.R.C.S., F.R.S.; J. W. W. Stephens, M.D., P.P.H.; and A. S. Greenbaum, M.D., F.R.C.P. Authorised translation from the German under editorial supervision of Alfred Stengel, M.D. 1905. Price, 21s, cloth.
2. Atlas and Text-Book of Topographic and Applied Anatomy. By Prof. Oskar Schultze, of Wurzburg. Edited, with additions, by G. A. Stewart, M.D. 1905. Price, 25s, cloth.
3. A Text-Book on the Practice of Gynæcology for Practitioners and Students. By W. E. Ashton, M.D. 1905. Price, 27s 6d, cloth.

Transactions of the Royal Academy of Medicine in Ireland. Vol. xxiii. Edited by J. Craig, M.D., F.R.C.P. (Irel.). Dublin: J. Falconer. 1905.

Report of the Board of Health on a Fourth Outbreak of Plague at Sydney, 1904, with Remarks on the Aetiology of Plague, based on its observed Epidemiology, 1900-4. By J. Ashburton Thompson, M.D., D.P.H., Chief Medical Officer of the Government.

Cleft Palate and Hare-lip. By W. Arbuthnot Lane, M.S., F.R.C.S., Surgeon to Guy's Hospital and Senior Surgeon to the Hospital for Sick Children, Great Ormond-street, London. London: The Medical Publishing Co., Limited. 1905. Price, 5s.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. L. H. Harris, Sydney; Dr. W. G. Armstrong, Sydney; Dr. B. B. Ham, Brisbane; Dr. J. F. Cobb, Sofala, N.S.W.; Messrs. Burroughs, Wellcome & Co., Sydney; The Fellows Medical Manufacturing Co., New York; Messrs. Mayer, Meltzer and Jackson, Melbourne; Messrs. F. Stearns & Co., Detroit, U.S.A.; Messrs. Parke, Davis & Co., Sydney; Dr. G. H. Hogg, Launceston, Tasmania; Mr. G. V. Miller, Goulburn, N.S.W.; Mr. G. S. Munro, Christchurch, New Zealand; Dr. Richard Jones, Eaglehawk, Victoria; Messrs. F. H. Faulding, Adelaide; Dr. L. W. Bickle, Adelaide; Dr. F. D. Bird, Melbourne; Dr. J. Ramsay, Launceston, Tasmania; Dr. Cribbe, Orange, N.S.W.; Dr. W. T. Hayward, Adelaide; Dr. Sinclair Gillies, Sydney; Dr. Guthrie Rankin, London; the Hon. Sir J. G. Ward, K.C.M.G., Wellington, N.Z.; Dr. W. H. Lang, Corowa; Dr. F. Hamilton Kenny, Gympie, Queensland; Dr. Shuter, Beechworth, Victoria; Dr. John R. Harris, Rutherglen, Victoria; Dr. William Roper, Bridport, England; Messrs. H. J. Langdon, and Co., Melbourne; Dr. Jas. Cox, Melbourne; Dr. R. E. Weigall, Elsternwick, Victoria; Dr. H. Laurie, Melbourne; Hon. J. B. Nash, Sydney; Dr. E. Champion, Ballarat, Vic.

AUSTRALASIAN MEDICAL GAZETTE.

THE STANDARD OF ETHICS AND WORK IN MEDICINE.

Abstract of an Address delivered in the Section of Medicine, Australasian Medical Congress, Adelaide, September, 1905.

By Daniel Colquhoun, M.D. (Lond.), M.R.C.P. (Lond.), M.R.C.S. (Eng.), Dunedin, N.Z., President of the Section.

AFTER some preliminary remarks, Dr. Colquhoun proceeded as follows:—To the public the technical détails of our studies are of little importance; the wise man leaves law to the lawyers, medicine to the doctors, and navigation to sailors. But in every art and science the public is the supreme judge of its usefulness, and there are questions concerning our own art that have to be propounded and answered anew from time to time almost by each generation. The most important aspect of the relation between medical practitioners and the public will always be that which is concerned with ethics. Does the profession maintain a high standard of conduct among its members? A second question, or series of questions, concerns the working side or efficiency of the profession. Is education thorough, here and abroad? Are the teachers and pupils alive and quick to grasp the needs of the hour, and alert to what is required of them, and, curiously enough, do doctors really know anything about disease and the curing of it? We have no objection to these questions—not even to the last. They are as necessary for those who practise medicine as for their patients. Many people behave, at any rate, as if the answer to the last question must be in the negative. They take drugs in enormous quantities on the strength of advertisements; they trust the care of their health to professed healers who have no qualifications except unbounded self-assertion; and they adopt theories of the most grotesque and absurd character. But large as this class is, it is not to it we appeal. It is to the sober and reasonable part of humanity; and imperfect as the result may be, I shall try to define our position both as to ethics and education.

There has been no little misunderstanding among all classes about medical ethics and medical etiquette, but there is really no mystery about either. The conclusion the profession as a whole has come to concerning their relation to one another and to their patients is the result of wide experience. Its philosophy has been of the inductive rather than of the intuitive school, but it is interesting to notice that with regard to the practical conduct of life these conclusions are the same as have been arrived at by the highest religious teachings. "Do unto others as you would wish others to do unto you" is the foundation of all medical ethics. And this rule has been reached, not on sentimental or emotional grounds, but as a deliberate, and one might almost say a scientific, opinion as to what is necessary for the carrying on of human society. A deep sense of the duty of the doctor to his patients has been impressed on their students by all the best of our teachers. The oath of Hippocrates (born about 460 B.C.) is famous and well known: "With purity and with holiness will I pass my life and practise my art. Into whatever houses I enter I will go into them for the benefit of the sick, and will abstain from any voluntary act of mischief and corruption. What I see and hear in connection with my professional practice or not in the life of men I will not divulge." Such oaths are no longer taken or required, but they are the law of the profession notwithstanding, and have been taught by our great teachers by the best of methods—their own example. From Sydenham and Harvey to Simpson, Paget, and Jenner, the English school of medicine has followed the Greek in this respect, and the law has added its powers to the moral forces. If any medical man is guilty of conduct deemed infamous in a professional sense his name is removed from the register of qualified practitioners on proof being given of his guilt. But the moral force is the stronger of the two. Few men are to be found who will face the condemnation of their own profession, and every practitioner knows that he will deserve and get that condemnation if he breaks the moral code laid down in effect in the Hippocratic oath. Elaborate codes of ethics are in existence, and perhaps they might be more studied in detail in our schools and societies than they are. But they deal only with details, and they are all founded on certain broad principles. Thus, no man may have anything to do with secret remedies or secret methods—he must make no profit out of such things. The Chamberlain Brothers invented obstetric forceps, but they are remembered chiefly for their infamy in concealing for personal profit a discovery which was of universal value. If a new remedy is useful for the relief of suffering it should be placed in the hands of all who can use it. If, as often happens, the supposed discovery is a mistake, it is the more quickly detected; if it is useful its range of usefulness is more quickly determined. All the great discoveries of our time have been improved by others than the discoverer. Indeed, the advance of any science would be impossible in the face of secrecy and jealousy in dealing with new facts. In the complicated business of professional life many minor regulations are necessary. The need for courtesy and fair dealing between man and man is nowhere more needful than in the relations between doctors. There is nothing which more surely stamps a man with the seal of mental and moral inferiority than the habit of decrying the work of his professional brethren and exalting his own. Even without that there are numerous cases of quarrel and misunderstanding between the best-intentioned of men. Every association of medical men knows by experience how hard it is to keep the peace among a few of its members. The code of ethics tries, at least, to do this, and the more nearly it is followed the chances of misunderstanding become lessened.

Another feature of the code is its condemnation of advertisement—either direct or indirect—among medical men. I will not dwell upon this beyond saying that this conclusion is a well-reasoned one, not arrived at from any pharasaical belief that we are better than our neighbours. Methods which are unobjectionable in ordinary business are not suitable in ours. But if we object to a policy of hustle we are fairly determined not to be hustled. We believe that our work is important, that for its best development it must be individual, and that the man who can do good work ought to be paid for it. We are at issue on some of these points with some very respectable gentlemen. The profession has always unstintingly given its services freely to hospitals, and there is no medical man in large practice who has not on his list a number, sometimes very large, of free patients.

A system has grown up whereby men of small income may get cheap medical attendance by a process of mutual insurance—the well-known club system. And this has been developed with the entire approval and assistance of medical men. But many men and women, both in town and country, have not hesitated to take advantage of the free work done in the hospitals and elsewhere. They sometimes defend themselves by saying they pay taxes. So they do, for charitable aid; but they do not seek to take this out in doles from benevolent boards; and the hospital is as much a charity as the benevolent asylum. A scheme, which may be called the medical syndicate, has found wide favour in some quarters. It proposes to hire a doctor for a salary, not too liberal, and assign to him the task of caring for the sick of a given district. Everybody is eligible for membership, and every member is, of course, entitled to his full share of the doctor's time and skill. Such syndicates strike at the very root ideas of our profession. We believe, if they were to be successful, they would destroy us by taking away individual effort, ambition and independence. The club system, admirable as it is, has been terribly abused, especially in country districts. Well-to-do men, lawyers, bankers, men of business, farmers, etc., have become members of working men's lodges, and have saved their pockets at the expense of our profession. We believe that this development of the system is bad, for the same reason that the syndicate system is bad, and that the chief sufferers in the long run will be the public. Not that the club doctors are inferior to their fellow-practitioners in any way. That is not the case; but because too much work is thrown upon them, often of a trivial nature. They have little leisure time for holidays, and that personal bond which is needed for sympathetic work is very often absent. We have to fight the policy of hustle in all these forms, and it is not altogether for our own sakes. We are of no use to anybody if we are not efficient, and we trust to that fact for the destruction of systems which would end in making us inefficient. These differences of opinion are to be regretted; but, as quarrels go, ours with a section of the public is not a very bitter one. And as we are not of a weak or disunited body of men, and only desire to see justice done, we believe we can discuss most of these matters with our temporary opponents with a good prospect of coming to an understanding. . . .

A matter which deserves extended consideration now and at other times in connection with all medical schools and universities is the health of the students. A sickly medical student is a satire upon our art. If a man cannot keep that body, over which he has sole control, in good order, how can he expect other people to trust to his skill in their ailments? We talk about *mens sana in corpore sano*, about "health being a man's best asset," and so on. What good does it all do? Before a man has learned the meaning of such phrases he has often established faulty habits of study and living which stick to him. Too many men break down in their student career and afterwards; too many men graduate and find that they have lost mental and physical elasticity in the process of learning, not to regain it perhaps for years. Is there nothing to be done systematically and steadily in the way of attending to the student's health? Should we be content with the old rule-of-thumb methods? The making of Utopias has always been a fascinating pursuit, even if the ideal is never realised. The university might well start with the fundamental idea that it was its business to teach its students the art of living as well as learning—and through its students the whole community. This was the old Greek ideal expressed in the words "music and gymnastic"—the care of the body as well as of the mind. There would need to be a residential college. Remembering that we are dealing with young men, not with boys, a great deal of the management could be done by the students themselves. The senior medical students might form a health committee whose business it would be to carry into practice the lessons they had been taught in their anatomy, physiology, hygiene and medicine classes. On his first entry into the college each man would undergo a careful physical examination—surely as important a thing as matriculation—height, weight, chest expansion, muscular force, and other important matters being observed. Monthly thereafter his record would be noted, so that the earliest sign of any failure in health might be detected. A sanitary committee would supervise the household arrangements, drains, ventilation, baths, etc. A gymnastic committee would see that the right kind of exercise was prescribed for each student. A catering committee would supervise the food arrangements. We preach the virtues of fresh air—the bedrooms would be as well ventilated as those of a sanatorium phthisical patient. We preach early rising and cleanliness—the student would rise at 7 in the winter and 6.30 in the summer, and begin his day with some form of exercise and a cold bath. We preach moderate diet. Here there would be room for observation and experiment. The food would be the best that could be bought, the cook the best that could be hired. In these directions there should be no false economies. But the food should be plain, suitable for students who need no heavy or late dinners, no stimulants to appetite. It is not beyond hoping that a university might be found bold enough to establish a school of domestic economy in connection with such a college, and if women could only be induced to believe that there was as honourable and profitable a career for them in this work as in nursing or any other occupation, one, at least, of the crying social wants of the day might be satisfied. Many possibilities might flow from such co-operation. We might see summer camps formed for boating, shooting, and fishing; for the study of Nature, and as health resorts for those who were run down from any cause. For non-resident students of the college would be a club-house, a place where a good meal could be obtained, and social intercourse encouraged. We might see fewer men going to cricket and football matches, and more men playing football and other games. Surely there is nothing more lamentable in modern life than the spectacle of thousands of able-bodied young men contenting themselves with watching others playing and having no pursuits of their own. To the university man, at least, the study of "gymnastic" ought to be an integral part of his daily life. I have often thought the student at a university is too much like an egg in an incubator—so much heat so many days, and the chicken steps out ready to fight for himself in the world. The university might do something better for him. It might encourage comradeship, make him feel more like a child who has an *alma mater* which educates him, cares for him, corrects him perhaps, but is proud of him as a son who will be one day proud of her. . . . The day has gone by when the need of local medical schools might be questioned. The matter has been settled. Victoria has granted degrees in medicine to 665 students, Sydney to 285, Adelaide to 49, and New Zealand to 88. Most of these graduates are now in active practice in the colonies and elsewhere. For an Austral student there is much to be said for an education in one of his own universities. The standard of education taught and required is not inferior to that which obtains elsewhere. The cost is less. The young man, at the most plastic stage of growth, is not cut off from those home and national influences which tend to bind him to his home and to his country. He studies the actual types of disease and the local conditions he is most likely to meet with in practice. For the colonies themselves it is of importance that they should be able to produce their own doctors at home. It means that an honourable career is open to many who could not adopt it if the education could only be procured abroad. For the poorer classes it means more abundant means of getting the benefit of special knowledge for the prevention and cure of disease and for raising the standard of health. On the other hand, a good many things may be urged in favour of educating the student in Europe. Probably things are best as they are. Some men go home and return with a leaven of wider experience. Some remain in the colonies, and are stimulated to better work by the knowledge that they have to compete with men from other schools. . . . .

There is a limit to the knowledge that one small head can obtain. When scholarship meant Greek and Latin the field was limited, and it was possible to be profound. It still is for the specialist, but common experience has demonstrated that the time spent on the dead languages is, for most young people, time wasted—or, at least, not adequately represented by the knowledge gained. As far as the medical curriculum in Australia is concerned they seem likely to be eliminated entirely. One may regret the loss of Greek, but it does not mean that the Greek spirit need go—the spirit that urges men to be artists in Plato's sense, not craftsmen. And when Latin goes it will leave behind it a sense of loss as if an old friend and servant had left our house for ever. It was not only the key to a great literature, but it was once the universal language of learning. Among many disruptive forces it was once for all Europe the common bond which made the united work of science possible. But to-day things are different. The growing demands of science need the utmost flexibility of speech—an accuracy and precision which are not possible in an alien tongue, however carefully studied. If a man has anything to say he must say it in his own mother tongue. . . .

Another point on which there has sometimes been misunderstanding is as to the free admission of teachers and students to public hospitals. This has sometimes been opposed on the supposed ground of the interests and feelings of the patients. I may say I have no sympathy with any who would claim for university teachers a monopoly of hospital appointments. Much of the most valuable work both in practice and teaching has been done by men who have had no connection with the universities. A public hospital should be open to all duly qualified men who are willing to give their services. It is true that unsuitable men are sometimes appointed, but the same thing applies to the duly accredited teachers. The advantages for good professional work are great in all hospitals, and these advantages should not be monopolised by any body of men. But it is not likely to be denied by anyone conversant with the subject that the standard of work is always higher among all the staff where there is a medical school than where there is none. Thus it is in the interests of the patients as a whole to have such schools. But there are some principles of selection which ought to be observed if the right men are to be chosen. Other things being equal, the man with special surgical qualifications should be chosen for a surgical post, with medical for a medical. The senior staff should be recruited from the junior. Each hospital of any size should have a senior staff and a junior staff in all departments. It should be the business of the junior staff to assist the senior, to take their places during absence for holidays or other reasons, and in this way they should be trained for the responsibilities of the senior position when their time comes. The present method in many hospitals of appointing men to the most responsible positions—those of physicians, surgeons, and specialists—without any preliminary training to demonstrate their fitness is in every way absurd, unfair to the patients, and unfair to those practitioners who are prepared to take trouble to fit themselves for doing the very best kind of professional work. There ought to be some continuity of work. Annual elections by hospital subscribers mean touting for votes, and that appointments are often given to the most unfit. Where medical schools exist in connection with hospitals, the governing authorities of these schools should have a fair representation on the hospital boards. This is not undemocratic. It is only recognising that the medical school really represents the whole of the people who may have to depend in sickness on the skill and honour of its graduates, and who through Government subsidies pay a large part of the cost of maintenance of hospitals. We in New Zealand at least have reason to recognise gratefully the attitude assumed, especially of late years, by our various hospital authorities towards our medical school. If friction has occurred it has been temporary and never serious. In advocating representation by the university on the boards of hospitals used for teaching purposes it is therefore not done in a carping spirit, but because I believe the change would result in a better understanding of the needs of the university on the part of the hospital trustees, and a better understanding on the part of the universities of the difficulties which have to be overcome.

If the presence on a hospital staff of specialists engaged in teaching is an advantage to the institution and to the patients by increasing the precision and accuracy of the work done, this is largely due to the presence of students, eager to learn and critical of methods. But beside this the students themselves are, I believe, a great gain to the hospital. Less instructed than their contemporaries very often in the business part of life there is no class of the community which has anything like the training and knowledge of human nature which these young men get. They bring into the wards an atmosphere of youth and energy and kindliness which is quickly felt, even by those patients who have most dreaded the experience. Children delight in them—older patients talk freely to them—they get at facts, often important, which their seniors would never get hold of—they keep in touch with all the details of their cases, and render invaluable help in treatment. Follies they have no doubt, and things could be, and are, cited to their discredit. As Paley said, the man who is never foolish is probably a fool all the time. But I know of no men who are in closer sympathy with the sick and the poor than are the medical students, nor who are more welcome and more trusted by them. And yet we have often had trouble to get them duly instructed—trouble arising chiefly from theorists and morbid sex-obsessed persons. They are the men who are to be the help-bearers to the sick and to women in their troubles; and yet we are told it is indecent, indecorous, improper, that they should have the opportunities of learning what these sufferings are. It is pitiful that we should have to protest against these objections. If we have to protest in vain, then let us shut up our medical schools and take again to amulets and charms, and spells, or their modern equivalents—electrical belts, magnetic rings, and faith healing. . . .

If I have tried to emphasise the value of book work in our plans of medical education it is because no more dangerous attitude can exist among students than that of despising books, and not to exalt that branch above the equally necessary practice study which must go on at the same time in the wards and in the clinical laboratories. In these branches we have no new principles, nothing that our predecessors did not recognise as fully as we do. We have to study nature and observe as closely as we can the actual facts which are before our eyes. But we have the advantages of innumerable helping methods which were unknown to them, and which are continually being added to. The mastery of these methods is a great part of the student's work. If his training has been sound he knows what a healthy body is. He has now to find out in what ways that standard may be departed from. Gradually every organ and every function of the body has been brought under exact observation and analysis. Thanks to Avenbugger and Laennec the lungs and heart can be explored, the thermometer reveals the exact degree of fever present, secretions can be analysed, the microscope shows the minutest changes in the blood and tissues, and the presence of harmful organisms, the Röntgen rays show change in the bones and soft tissues. It is not claiming too much for medicine to say that its part is to estimate the health value of the human body as the engineer estimates the strength and value of the materials he has to use, and the strains they may be subject to, and that he has, as a rule, the means at his command to make that estimate. We sometimes hear that medicine is not a science—that it is purely empirical, that we pour drugs of which we know nothing into bodies of which we know less. Never were gibes more empty and meaningless. What is science if medicine is not a science? We know there is no such thing as absolute knowledge among men. But we do not say there is no science of navigation or shipbuilding because ships are lost at sea, or that there is no science of engineering because of a Tay Bridge disaster. If science means the systematic accumulation of correct knowledge by observation within the limit, but to the full extent of human powers, then medicine need not fear the test, and can claim its place with the other departments of human knowledge. And not only that, but it must remain where it has always been—at the head of all the branches of the science of healing. Its business is to take the most comprehensive view of the human body in health and in disease, and of all the methods whereby the one may be maintained and the other eradicated or modified. Whatever may be the skill of the specialist, the surgeon who deals with all the body or a part, it is at his peril and that of his patient that this view of the relations of the whole organism are disregarded. No one values the skill of the surgeon more than the physician, and I believe that equally the wise surgeon recognises that in most of his cases there is a medical aspect which is better observed by the physician than by himself. And striking as are the achievements of the surgeon, it is still the province of the physician to deal with the greater part of the maladies of the body, and the public may rest assured that the study of all the means which can help to make men efficient is being pursued in all parts of the world with an energy and enthusiasm which is exceeded in no branch of science.

It may be asked if the curing art has kept pace with the acknowledged advance in the science of disease. I have very little hesitation in answering "Yes" to this question. The most striking proof of general improvement in the healing art is to be found in the improvement in the value of life during the last 100 years or less. In the early part of the nineteenth century it has been estimated that the average age of death was about 20 years. It has now been raised to at least about 40. And this has been obtained through the application of commonsense methods of daily life. Human beings flourish when they get a plentiful supply of fresh air, sunshine, simple food, and exercise. This has been the reasoning which from the time of Hippocrates doctors with more or less success have tried to instil into the public mind. In the matter of the life of the individual medicine has been no less successful. It has made it its first business to get an accurate grasp of the real nature of disease and degeneration, and having done that, it has aimed at combating these causes. Nothing is easier than to despise the past and to see nothing in it but its blunders, but our whole knowledge is founded upon the work done by those who have gone before us, and they have left behind a vast treasury of material, which is of the greatest value in therapeutics. If we have dropped much of these methods, we have retained more. Only those who know little about medicinal substances deride them, on the principle that it is the bad workman who quarrels with his tools. There are few diseased conditions which may not in some way be helped or modified by the judicious use of the medicines which are at our command. We are learning something day by day—a something of the limits of our art, and many new possibilities of its extension. There are obscurities and difficulties, for are we not dealing with life—the greatest of all mysteries? There are half-truths and whole truths, false theories and true in abundance, and it needs a cool and wary head to disentangle them from one another. . . . .

There are many other agencies which help to keep up the educational standard of the doctor after he has gone into practice, such as books, journals, and medical associations. Of none of these is it necessary to say much—their usefulness is apparent. It is only to be regretted that so many members of our profession do not avail themselves as they might do of the advantages of local societies and such meetings as this for the discussion of their common interests and of their daily work. We are sometimes told that our medical associations are great trades unions. I am afraid those who use this phrase do not always mean it as a compliment—even when they are unionists themselves. Many of us would be glad if our associations could emulate the virtues of the best of these great unions—the loyalty of their members to each other and mutual helpfulness. Perhaps they might also learn some lessons from us, and we might then see the spectacle of one of these unions meeting as we do to discuss new ways of improving their work, trying to find out what other nations are doing—European, American, or Asiatic—and selecting the best of these methods for the improvement of their own work.

There are many problems before us in medicine when we have mastered the knowledge that is available from the work of the past. We must still seek after new definitions of disease, and endeavour to understand better its near and remote causes. We must continue to seek for new methods of cure and prevention of disease; but bearing all these things in mind I am inclined to think that a great deal of the most useful work of the future must begin with ourselves—with putting our own house in order. If we can first of all teach our students how to live sensible, health-bearing lives, they will carry the habit into mature life with them. We have left these things to chance to the uninstructed parent or pupil. We might as well leave any other branch of knowledge to the same influences. Logically we ought to begin with the schools. We should examine the teeth, the eyes, the lungs, the digestive organs, the muscular system of the pupils. But we know we cannot do this. We can, however, begin with the medical schools if the students will help us, and unless our theories are false we ought to be able to turn out a body of young men whose physical and mental condition will be the best argument that can be used to persuade other classes of society to carry out the same system. To go back to the vegetable kingdom for an illustration we find that the best authorities tell us that for stamping out and avoiding disease among plants we want rather abundance of manure as food than mechanical methods of destroying parasites. With human beings also disease is most often a manifestation of imperfect nourishment, due to causes often to be traced back for many years—not truly to the mere local parasite, which has found the tissues weakened, and has attacked them successfully.

I have tried, imperfect as I know the result must be, to lay before you the standard of ethics and work of the profession of medicine of to-day. I do not think we have reason to be ashamed of either, but individually we must know how far short we fall of carrying out these ideals. "The artist," said Plato, "works for the supreme love of his art whatever it may be; the craftsman works for his wage." We try to do honest work, to be help-bearers to the suffering, to shun greed and envy and malice, and self-conceit, to take large views of life—and we fail often enough—but because we try I do think we gain, as few of our fellowmen do, the trust and kindly feelings of those among whom we work. And that, after all, is our highest reward.

CASE OF OTITIS MEDIA, WITH INVOLVEMENT OF THE LATERAL SINUS AND TEMPORO-SPHENOIDAL LOBE.

By James Cox, M.D., M.R.C.S., Hon. Surgeon for the Ear and Throat, Alfred Hospital, Melbourne.

R. R., *æt.* 15 years, admitted July 20th, 1905. Seventeen days ago she developed a heavy cold in the head and was kept in bed for eight days. A day or two after being in bed she commenced to vomit, and this was frequent during the whole time she was in bed. It was rather a projectile type of vomiting. The vomiting was variable—sometimes immediately after food, while at other times it was independent of it. She complained of frontal headache from the beginning of her illness. When left undisturbed she would lie for hours without moving or speaking, this being exceptional conduct for her. (She was a backward child for her age, and simple in her ways. Her mother is in an asylum.) At the end of eight days she complained of stiffness and pain in the neck and back, and these have continued since. The day before admission the eyes seemed so prominent and her expression so peculiar that the matron of the Salvation Army Home (where the child lived) thought she was going insane.

Previous History.—She has been at the Salvation Army Home for the past two years, and during this time she was noticed to be deaf, but much more so during the last two days. Her ears for months past were frequently syringed because they smelt offensive, but no discharge was ever seen.

Examination.—She entreats to be allowed to lie down and go to bed, and has been doing this for the last nine days, since she first got up. There was very marked head retraction and rigidity. She prefers to lie on either side rather than the back, and is irritable when touched. She moves, however, without any apparent pain. Herpes labialis present; tongue moist and clean.

Pupils.—Equal and moderately dilated, and react to light. The fundi were examined and no optic neuritis was discovered. No oculomotor paralysis. No facial paralysis.

Ears.—Is very deaf. No tenderness, redness or swelling of either mastoid. The memb. tymp. thickened, with small perforation posteriorly. A small pledget of absorbent wool on probe was inserted into right ear and was found to have when withdrawn a small quantity of offensive smelling pus.

Tendon Phenomena.—Both knee-jerks were difficult to obtain, but they were of equal intensity. The plantar reflexes were sluggish and of normal type. The abdominal reflexes were active and equal. The tendon phenomena of the arms were difficult to elicit. Urine 1020, acid, no albumen.

21/7/05.—This afternoon had a rigor lasting 11 minutes, the temperature rising to 102·8°.

23/7/05.—Is in much the same condition; not complaining of any pain, but inclined to be noisy and naughty. The left eyeball seemed more prominent, and the left pupil appears to be slightly larger than right. Neck not so rigid and less retracted to-day. Had another rigor this afternoon, lasting six minutes. Temperature still fluctuates between 100° and 103°, and more septic in character.

25/7/05.—Radical mastoid operation performed this afternoon. The antrum was deeply placed and the bone sclerosed; a small sinus led down to the tip of mastoid, and another backwards and upwards to the lateral sinus, which was opened and found full of pus. This was washed out, and followed upwards and downwards until bleeding was noticed from both ends. The wound was plugged; the internal jugular vein was then exposed, and found collapsed. This was tied above and below the facial vein, the upper end being dissected out and left exposed.

26/7/05.—Her condition is good. Temperature 99·2°, and patient is quite conscious. This evening a paresis of left side of face, left arm, and left leg noticed for the first time. There is no squint, and the pupils are equal.

27/7/05.—Condition much the same as last evening. Still has paresis of left side of body. Is quite conscious. Pulse varies from 80 to 108, and no intermittence. Tendon phenomena—Knee-jerks still difficult to obtain, but of equal intensity. Now has definite Babinski plantar reflex of left foot; right plantar of normal type. 10 c.c. of anti-streptococcic serum injected.

28/7/05.—Patient in a semi-comatose state, tossing right arm about. Still has left facial paresis, but left arm is in a moderate state of rigidity to-day, also left leg. Both knee-jerks of equal intensity and rather active to-day. Neck still rigid. No squint. No alteration of pupils. Pulse 84, very irregular. About 7 p.m. respiration ceased, but pulse was still strong, and remained so for an hour under artificial respiration, when she died.

Post-mortem Notes by Dr. J. R. Mackeddie.

Brain.—The calvarium was with difficulty removed owing to firm adhesions of the dura mater. The calvarium presented a curious unevenness of thickness, especially about the anterior fontanelle. The whole right side of the base of the brain was firmly adherent to the base of the skull in a purulent mass, and on removal of the brain the whole base was bathed in thick, stinking pus. The right tempora-sphenoidal lobe—especially in its third convolution and posteriorly—was involved in a soft. grumous mass, which on section showed some penetration, and was evidently of some standing. The lateral (right) sinus groove communicated with the operation wound, but the clotted vein with its dural covering had been shoved off and lay quite loose from its groove. The lateral sinus was clotted to the torcula. There was no evidence of extension into the cavernous sinus.

Heart.—No valvular lesion, no staining of the myocardium. There was a good deal of clear fluid in the pericardium.

Lungs.—Normal.

Liver.—Large, but not tough.

Kidneys.—Much congested and slightly tough.

Cause of Death.—Suppurative meningitis, respiratory failure.

(Read before the Victorian Branch of the British Medical Association.)

THE X-RAYS IN THE DIAGNOSIS OF INTRA-THORACIC MORBID CONDITIONS.

By W. H. Read, M.B., Ch.M., Sydney.
Hon. Assistant Radiographer Sydney Hospital.

THE X-rays have been applied as a diagnostic measure in almost every intra-thoracic morbid condition. In this paper I shall deal only with those conditions with which I have had any experience.

Each of the methods of X-ray examination, viz., skiagraphy and fluoroscopy, is available when examining the chest, and each has its special indications. A fluoroscopic examination is, however, of much more value than skiagraphy. The constant movements of the bony thorax, the heart, lungs and diaphragm serve only to blur outlines and erase details on the sensitised plate, whereas these same movements are a distinct advantage when making a screen examination, since it is by comparing these movements as they exist in the diseased condition with what we find in the normal state that we are often led to make a diagnosis.

The field of usefulness of skiagraphy is very limited. It is principally of use when we require a permanent record of what we have just seen with the screen. In examining the chest it is an advantage to use a screen of sufficient size to receive the image of the entire chest, and it should be kept as close as possible to the patient that shadow distortion may be at a minimum. We require a tube of fairly low vacuum and as strong a current as we can employ without running the risk of injuring the tube. The patient may be examined standing or he may be seated on a low-backed chair, and it is often an advantage to get him to raise his arms above his head and to turn slowly round during the examination, as much information can often be obtained when the rays are projected in an oblique plane. Some cases should be examined with the patient lying down, as well as standing, *e.g.*, cases of pleuritic effusion ; the alteration in the level of the fluid can thus be appreciated. To do this it is of course necessary to have the tube fixed beneath the examining table. The chest should always be examined from the back as well as from the front. In posterior irradiation, the chest is examined from the front, the rays passing through the chest from the back to the front. Examining a normal chest in this way we see the shadows of the sternum, clavicles and anterior portions of the ribs. The heart shows up as a well-defined shadow, as also do portions of the great thoracic vessels in the interval between the base of the heart and the sternal end of the clavicles. The bulk of the heart shadow is, of course, seen to the left of the sternum ; a small portion, corresponding to the right auricle, can, however, be seen to the right of the sternum. The lower portion of the heart shadow is continued into that of the liver. During deep inspiration, however, a clear interval appears between these two. This would seem to indicate that the heart is suspended in the chest by means of the great vessels, and that it is not supported by the diaphragm, as was at one time understood.

To recognise alterations in the cardiac outline, a good plan is to map out the normal shape of the heart with fuse wire fastened to the chest by means of ordinary plaster. We then examine with the screen and note whether the outline of the heart thus projected corresponds with what should exist under normal conditions.

The lungs cast no appreciable shadow, so that the intercostal spaces should appear quite clear. During deep inspiration the lungs appear more translucent, so that the dark outlines of the heart and diaphragm show up more distinctly. A complete study of the diaphragm and of its movements is of great importance in estimating the extent and severity of a pulmonary lesion. Being moulded to the upper surface of the liver, which is opaque to the rays, a striking contrast is obtained between its dark shadow and the translucent lung. On the right side it appears as a well-defined arch ; on the left side the shadow of the heart is continued into that of the inner portion of the diaphragm, so that the diaphragmatic line is here more or less obscured. Beyond the heart, however, the outer portion of the left diaphragm can be well seen, and during deep inspiration a clear interval appears between the heart and the diaphragm, which shows up as a well-defined arch across its whole extent. During deep inspiration, too, the diaphragm shows up more distinctly, as the lungs then contain more air, and are consequently more pervious to the rays. The contrast between the two is accordingly more marked. Another factor contributing to this contrast is the form of the diaphragm during deep inspiration—it is flatter and more compact, and so interposes more tissue in the path of the rays, thus accentuating the contrast. During forced expiration, on the other hand, the diaphragm is less distinct, as the lungs then contain less air, and the diaphragm being more arched less tissue is interposed in the path of the rays. The result is that the contrast between the two is less striking. The extent of the diaphragmatic excursions varies ; during quiet respiration it moves about half an inch, during deep respiration about two inches. The highest point of the diaphragm reaches the level of the fifth rib on the right side ; on the left side the dome of the diaphragm is one interspace lower, the presence of the liver making the right side higher.

In anterior irradiation the chest is examined from the back, the rays passing through the chest from the front to the back. Examining a normal chest in this way we see the shadows of the vertebral column, the posterior portions of the ribs and the scapulæ. The heart appears to the left of the spine as a triangular shadow, with well-marked pulsating border. To the right of the spine, a faint strip of shadow corresponding to the right auricle can be seen. The heart shadow appears much larger when examined from the back than when examined from the front. This is because the heart is further from the screen in the former. The nearer the object is to the screen the closer approximation do we get to its actual size. The diaphragm appears as a well-defined arch on the right side; on the left side the heart shadow merges into that of the diaphragm, which is thus more or less obscured. The X-ray examination of the chest should always be done in conjunction with the ordinary clinical examination. In this way the one will supplement and aid the other.

We may secure a rough record of what we see with the screen by fastening to it a sheet of white paper and tracing on this with a flat metallic pencil the outlines as projected by the rays. In nearly all cases examined with the screen a faint line of shadow is to be seen on either side of the sternum when examined from the front, and on either side of the spine when examined from the back. This is apparently due to chains of bronchial glands.

Passing now to the consideration of morbid conditions, and dealing first with the heart and great vessels, in hypertrophy the shadow is increased in size, the apex is displaced, and the clear space, usually seen between the heart and the diaphragm during deep inspiration, is either diminished or disappears altogether. Aortic dilatation can be seen from the back as well as from the front, and appears as a general increase of the normal shadow of the aorta. Abnormal pulsation can be detected at the edges of this shadow, which is fusiform in outline and does not bulge out in one particular direction, as is the case in aneurism. Aortic aneurism has been detected by the rays when its presence could not be determined by the ordinary methods of physical examination, *e.g.*, in the large and emphysematous lungs of an asthmatic. On the other hand, the rays have failed to detect some large aneurisms which have been obscured by other morbid conditions, as pleuritic effusion, thickened pleura, etc.

When the ascending aorta is principally involved in the aneurism there is a well-marked area of shadow bulging out to the right of the upper part of the sternum, and it is best seen by examining the chest from the front. Aneurism of the transverse part of the arch is also best examined from the front. The shadow is seen mainly to the left of the sternum, and is separated from the heart shadow below by a clear interval. Aneurism of the descending aorta is seen best from the back, where it shows as an increase of the normal shadow area in this region. It is seen principally to the left of the spine, and is separated from the cardiac shadow by a clear interval. In some cases the shadow is fusiform in shape, and merges gradually into the heart shadow. In all cases of aneurism definite pulsation can be detected at the edges of the shadow, and this distinguishes it from the shadow of a mediastinal tumour. In all cases, too, the heart is observed to be considerably displaced, usually downwards and outwards, and the diaphragm also is depressed on the left side. Some observers maintain that in cases of aneurism the heart assumes a transverse position in the thorax, the right side being apparently pushed downwards by the aneurism above, and the apex tilted upwards.

In the case of tumours of the chest wall and enlarged glands in the neck and axilla, we can say whether they are connected with any intra-thoracic condition or not. Foreign bodies in the trachea, bronchi or œsophagus can be located, and in the case of œsophageal stricture we can determine the seat of the stenosis by making the patient swallow a capsule containing some bismuth subnitrate. This, of course, is opaque to the rays, and will be seen to be arrested at the seat of the stricture. The rays are of value in the diagnosis of cases of transposed viscera. The lungs under normal conditions cast only a very faint shadow. This is, of course, because they are full of air, which offers no obstruction to the rays. If there were no lung tissue but only air within the chest cavity, no shadow whatever would be seen on the screen. The clinical application of this fact is that the intensity of the shadow is in indirect proportion to the amount of air present. In conditions in which the amount of air is increased—*e.g.*, pneumothorax, emphysema and cavitation—the shadow is less intense; and, conversely, in conditions in which air is more or less excluded—*e.g.*, pleuritic effusion and consolidation—the shadow is more intense.

We may thus in various diseased conditions recognise areas which cast no shadow at all, but appear as clear spaces; or we may recognise areas casting shadows of varying degrees of intensity. A large empty cavity, or a large pneumothorax, appears as a well-marked, clear area. In smaller cavities, dilated bronchi or emphysema, the clear area is not so well marked. A faint shadow indicates a partial consolidation, a small tumour, or a thickened pleura. A dark shadow may result from consolidation, abscess, large tumours, hydatids, or pleuritic effusions.

The position in the antero-posterior plane of the clear area or of the area of shadow can be determined by observing whether it can be seen most plainly when examined from the front or from the back. The closer any object is to the screen, the clearer the image. If it shows equally well from the back and front it must be centrally located. It is easy enough to say that a shadow or a clear area indicates one or other of several conditions; what we want to be able to say is that it means one thing and one thing only. This is just exactly where the rays, in the majority of cases, fail. Still, taken in conjunction with the information obtained from the ordinary clinical examination, I think we can safely say that we get much nearer to the real state of affairs than we did before the advent of the rays. And in some conditions we are able to make a differential diagnosis by the aid of the rays alone—*e.g.*, a shadow over the base of one lung may indicate either a pleuritic effusion, a pulmonary consolidation, or a thickened pleura. If it be a pleuritic effusion, we find that the upper border of the shadow moves when the patient's position is changed. This, of course, does not happen in the other two conditions. The displacement of the heart and mediastinum by the effusion can also be observed. If the effusion is encapsulated or reaches to the apex it cannot be distinguished from a consolidation except by using a hypodermic needle. In cases of empyema the shadow is said to be not so intense as when the effusion is only serous. This, like the supposed difference in the percussion note in some chest conditions, is, I think, rather a fine distinction.

The appearance of the diaphragm in diseased conditions is of great importance. In most cases of tuberculosis it may be noticed that the diaphragm is moving less on the affected side. This occurs even in very early cases, so that it may be regarded as an early diagnostic sign. Some observers claim that they can detect tuberculosis in the lungs by means of a screen examination, when its presence could not be determined by the ordinary means of physical examination. At any rate, if on examination we find no shadow in the lungs and the movements of the diaphragm normal, we can say that there is as yet no serious involvement of the pulmonary tissue. In all cases in which the movements of the lungs are impaired we see on the screen a corresponding limitation in the movements of the diaphragm. In emphysema and pneumothorax the diaphragm is low down and restricted in its range of movement on the affected side. It also shows up more distinctly as the lungs contain more air.

Again, pleuritic effusions and various abdominal conditions, as dropsy and hydatid of the liver, will restrict the diaphragmatic movements. The visibility of the diaphragm is another factor of importance in diagnosis. It may become blurred and indistinct in œdema and thickened pleura about the base, and in cases of effusion and basal consolidation it may become invisible.

As mentioned at the beginning of this paper, the field of usefulness of skiagraphy in the examination of the chest is very limited. A screen examination should always precede the taking of a photograph. We can thus determine the best position in which to place the patient in order to get the best representation on the plate of the diseased condition. The plate should be placed against the front or back of the chest, according as the lesion which we wish to photograph can be seen best from the front or back. To obviate the blurring of the image due to the movements of the ribs, etc., it is a good plan to get the patient to hold his breath during the actual exposure, the current being switched off again and again to enable him to take in some air. To prevent the shadows that are cast by the clavicles from superimposing the lung apices, the patient should be face downwards on the plate and the arms crossed above the head. In this position the clavicles are drawn above the lung tissue. I have had no experience of the use of a diaphragm in skiagraphy of the chest, and do not think it can be of much value, except perhaps in those cases in which we wish to photograph only a small area. In all cases it is necessary to have the tube a good distance from the plate, in order to prevent diffusion and distortion of the image.

In conclusion, I would say that I look upon the study of the X-rays in diseased conditions of the chest as an exceedingly difficult one, and one requiring an infinite amount of care and patience. In the present state of our knowledge they are undoubtedly an aid to diagnosis. When stereo-fluoroscopy and stereo-radiography come to be accomplished facts, and with the general improvements in methods and technique that must necessarily follow, I do not doubt but that their field of usefulness will be very materially increased.

(Read before the New South Wales Branch of the British Medical Association.)

EXTRO - VERSION OF THE BLADDER: ITS TREATMENT BY EXTRA-PERITONEAL IMPLANTATION OF THE URETERS INTO THE RECTUM.

By H. Simpson Newland, M.B., M.S. (Adel.), F.R.C.S. (Eng.), Adelaide.

At the last Intercolonial Medical Congress held in Hobart, Dr. Lendon, when introducing his original operation for the treatment of this distressing deformity to the notice of the profession, made the following prophecy: "I am inclined to think that it will prove to be the method of the future, subject possibly to some slight modifications." This prediction was made a comparatively short time ago, and it is too soon to say whether it will prove to be true. Maydl's operation, or some modification of it, such as that of Borelius, is certainly more commonly performed. That very few cases have so far been treated by the extra-peritoneal method is not surprising when the rarity of the deficiency is considered.

With a view to calling the attention of members of this section to the advantages of extra-peritoneal implantation of the ureters (uretero-proctostomy) this record of a successful case is brought before you. Cases which have been operated upon by this method are collected in an appendix, which, however, lays no claim to completeness.

The following are the notes of the case, which is the subject of this paper :—

H.G.W., a boy of 7, fairly well developed for his age, was brought by his parents in March, 1904, for an opinion as to the advisability of an operation. The deformity of the bladder had been present from birth. At the age of three a plastic operation had twice been unsuccessfully performed in the Adelaide Hospital. He had always enjoyed good health.

The family history revealed nothing of interest. On examination a pyriform area of bright red mucous membrane was to be seen in the pubic region. The stalk lay downwards and was formed by the penis, which was in a state of complete epispadias. Above and at the sides the junction of skin and mucous membrane was well defined. The latter showed a scarred condition due to the previous plastic operations. The exposed surface of the bladder ended below in the cleft urethra, in the proximal portion of which the vera montanum could be recognised. A transverse sulcus, due to the folding of the urethral on the vesical mucous membrane, existed. When this was opened out by gently drawing the penis downwards, the vera montanum and ureteral orifices were more distinctly exposed. The latter lay at the summits of two papillæ, from which urine gushed forth intermittently but seldom simultaneously. There was no ulceration of the vesical mucous membrane nor irritation of the surrounding skin.

The cleft prepuce was very large. The scrotum was well developed but bifid. The testicles were incompletely descended. They lay below the external ring and could be pushed into the scrotum. No hernia existed.

The pubic bones were widely separated. The gap could be felt distinctly, and is very obvious in the skiagraph. The pelvis is consequently flatter than normal, and the inner surface of the thighs, instead of meeting at a narrow angle at the perineum, are separated by a wide interval. The gait is therefore rather waddling in character.

The urine collected from the uncleansed surface of the bladder was slightly alkaline (phosphates); that collected from the ureters direct was acid and free from albumen and pus. The thoracic and abdominal organs were healthy. Dr. Lendon courteously granted me the use of one of his beds in the Children's Hospital, and kindly assisted me at the operation.

On March 29th, 1904, the following operation was performed after anæsthesia had been induced by chloroform, followed by ether: The anus was dilated and the rectum washed out with saline solution. The vesical ends of the ureters were then freed according to the method employed by Peters. A No. 3 Jacques catheter was passed into each ureter for about two inches and fixed to the urethral papilla, the one with a fine silk, the other with a fine catgut stitch. A circular incision of as great extent as possible was then made through the mucous membrane around each papilla. This was deepened until the bladder wall was completely cut through. The separation of the ureter from the loose cellular tissue, in which it lay along the wall of the pelvis, was easily effected. Each ureter was exposed for 1½ to 2 inches. With the left forefinger in the rectum and the right in the supra-pubic wound the anterior and lateral walls of the rectum were defined. A Lister's sinus forceps was passed into the rectum and its fine point thrust through the lateral wall about 1½ inches above the anus. The small wound was dilated by opening the blades of the forceps. The catheter in each ureter was grasped by the sinus forceps and drawn through the wound in lateral wall of the rectum on the corresponding side. The ureter followed the course of the catheter, the rosette of vesical mucous membrane passing through the wound in the rectum much as a button passes through a button-hole. With a large rosette of mucous membrane and a small rectal wound there is no danger of the ureter slipping out of the rectum, and there is no necessity for a restraining suture. The catheter in the left ureter was forthwith removed. The rosette on the right side was not a large one, and it seemed better to leave the catheter in the ureter. The remainder of the vesical mucous membrane was not interfered with. The wound left by the transplantation of the ureters was gently packed with iodoform gauze. The free end of the catheter in the ureter was passed into a bottle containing boracic lotion. The operation, though tedious, was well borne, and the patient did not suffer from shock. A mixture containing salol and urotropine was ordered to be taken every four hours. Urine commenced to flow from the right ureter immediately after the operation. Seven hours later he passed some blood-stained urine by the rectum, and during the night one ounce was drawn off by a catheter passed into the rectum. The catheter in the right ureter was removed the day after the operation and the rectum washed out with boracic lotion, and this was ordered to be repeated daily. Two days after the operation he could retain his water from two to three hours during the day, but was troubled with incontinence at night. He gradually acquired more and more control over the flow of urine until at the end of the month he was able to remain dry all day and only occasionally wet his bed at night.

On May 6th he developed a temperature of 102°, and for the next three weeks his evening temperature ranged between 101° and 104·8°. The child lost his appetite, he became apathetic, and his weight diminished rapidly. The tongue was red and dry, and the abdomen full. A swab from the throat and a "Widal" were negative. The temperature reached normal on May 27th, and from that day he rapidly gained flesh and strength, and was discharged from the hospital on August 31st. He was still troubled with occasional nocturnal incontinence. I believe the pyrexia to have been due to an attack of pyelo-nephritis.

He was readmitted in September, and on the 30th day of that month the remaining mucous membrane of the bladder was dissected away. The raw surface was diminished in size by the insertion of transverse Halstead sutures of catgut. The skin was then freed all round, and extensively undermined. As the skin could still not be sutured across the raw surface without tension, a curved incision, with the convexity upwards and outwards, was made on each side from the upper limit of the raw surface left by the ablation of the vesical mucous membrane to the groin. The wound, when closed, presented a tri-radiate appearance. At the same time an attempt was made to close the proximal portion of the urethra. An incision was made along the junction of skin and mucous membrane. A flap of the latter was dissected up on each side and sutured the one to the other. The skin was undermined and sutured over the urethral mucous membrane. The whole wound healed well, with the exception of the small portion lying over the urethra.

A month later another attempt was made to establish a urethral canal. On this occasion the penile urethra was treated as well. The mucous membrane was dissected up on each side and sutured. The skin was joined over this. There was considerable tension, and union again failed. I therefore determined to use the redundant prepuce to remedy the condition of epispadias. In the previous operations on the urethra, the attempt had been made to form a canal lined by mucous membrane for the possible future escape of prostatic and seminal secretions. This idea was now regretfully abandoned.

On December 21st the whole of the urethral mucous membrane was dissected away. An incision was made through the prepuce at its junction with the glans, and it was then stripped from the under surface of the penis. A large flap of skin was thus obtained. It was next button-holed, and the glans penis passed through the opening. The flap was then sutured along the dorsum of the penis. On this occasion the wound healed well and the patient was able to return home.

I have collected eight cases which have been operated upon by the method of extra-peritoneal implantation of the ureters; two died, giving a mortality of 25 per cent. Orloff has collected 56 cases of Maydl's operation, with 11 deaths, or a death rate of 20 per cent. These figures, however, only represent the *published* and not the real mortality of the operation. I know of several unpublished cases of both operations in which death has ensued. Consequently these statistics are of little use in gauging the relative merits of the two operations. We must, therefore, be guided by other considerations. In Maydl's operation and its modifications, it must always be an objection that the peritoneal cavity is opened. In Orloff's statistics, of the 11 deaths, four were due to peritonitis, and in the 45 cases which recovered seven suffered from fæcal fistula. Peritoneal infection does not occur in the extra-peritoneal operation, and fæcal fistula has not been recorded. A risk common to both operations is that of ascending ureteritis and pyelo-nephritis. In the eight cases I record the two deaths were both due to this cause—one five days and the other two months after operation. Of the 45 cases of Maydl's operation that survived more than three weeks, five died from pyelo-nephritis. It is argued that ascending infection in Maydl's operation is rendered less likely because the ureters are transplanted without disturbing their terminations in the bladder. As a matter of fact, in the extra-peritoneal operation, if as large a rosette as possible of mucous membrane be isolated around each urethral orifice, very little injury is done to them. Pyelo-nephritis is therefore no more likely to occur in the extra-peritoneal than in Maydl's operation. Borelius has modified the latter operation by performing a lateral anastomosis of the limbs of the pelvic colon or sigmoid flexure, and then grafting the trigone of bladder and ureters into the end of the loop. It is considered that the lateral anastomosis will prevent the passage of the intestinal contents over the ureteral orifices. This passage, however, will occur, unless, as has been suggested, the lumen of the afferent limb of the sigmoid loop be obliterated just distal to the anastomosis. Experience will show whether pyelonephritis will be prevented by this manœuvre. Done in this manner the severity of the operation is immensely increased.

At best, the intra-peritoneal operation is a tedious and difficult one, and attended as a rule by shock. The extra-peritoneal operation, though at first sight difficult, is in reality not so, and in my case, at least, was not attended by shock.

The *ultimate results* of the two operations are similar. The majority of cases can hold their water for several hours in the day time. Some cases of nocturnal incontinence occur. The urine causes no irritation of the bowel. In my case, during his journey down to Adelaide, he held his water for six hours. He occasionally has nocturnal incontinence; the urine he passes then is clear, and not discoloured by fæces. The sigmoid flexure is said to form a better reservoir than the rectum. It must be remembered, however, that fæces are more constantly present in the sigmoid flexure than in the former. The weight of evidence, therefore, seems to favour the extra-peritoneal operation. When either is successful there can be no question that a comfortable existence replaces what has hitherto been a most distressing one.

In conclusion, I should like to say that abroad sufficient credit has not been given to Dr. Lendon, of this town, for having devised this new method. It is usually known as Peters' operation. It is, however, only fair to state that Dr. Lendon performed his operation two months before Peters operated upon his first case in Toronto.

(Read before the Surgical Section, Australasian Medical Congress, Adelaide, September, 1905.)

100 CONSECUTIVE ABDOMINAL SECTIONS PERFORMED AT THE LEWISHAM HOSPITAL WITHOUT A DEATH.

By W. J. Stewart McKay, M.B., M.Ch., B.Sc., Senior Surgeon Lewisham Hospital, Sydney.

Successful series of 100 consecutive section cases have been reported but rarely. Tait recorded 139 ovariotomies, and Robb, in America, had a series of 114 gynæcological sections without a death. There have been some good series for the removal of the appendix during the quiescent period. I have not found any record of 100 consecutive cases of general abdominal sections, and am therefore induced to publish this series, which consists of those sections that I have performed at the Lewisham Hospital between February, 1904, and July, 1905. The various operations performed are contained in the following list :—

	No. of cases.
Appendicitis	23
Appendicitis and ovaritis	2
Appendicitis and salpingitis	3
Appendicitis and twisted hydrosalpinx	1
Edelbohl's operation for floating kidney and removal of appendix	1
Pyosalpinx and salpingitis	12
Hydrosalpinx	3
Ovaritis	2
Ovarian cysts	5
Ovarian abscess	1
Ovarian sarcoma	1
Ectopic pregnancy	4
Ectopic pregnancy and pyosalpinx	1
Hysterectomy for fibroid and malignant ovarian tumours	1
Hysterectomy for fibroid	2
Hysterectomy for metritis and salpingitis	1
Myomectomy	1
Hysteropexy	5
Hydatid cysts of liver	2
Enterectomy for intestinal fistula	1
Enterostomy for intestinal obstruction	2
Intestinal obstruction	1
Gastro-enterostomy for malignant disease of stomach	1
Cholecystotomy	3
Cholecystectomy	1
Inguinal colotomy for malignant disease of rectum	1
Post-operative ventral herniæ	3
Epigastric hernia	1
General purulent peritonitis	1
Inguinal Section :	
To break down adhesions	4
For salpingitis	2
For ovarian cysts	2
Exploratory :	
Malignant of liver	1
Malignant of ovaries	1
Malignant of rectum and bladder	1
Sarcoma of pelvis	1
Dilated stomach	1
Small fibroid	1
	100

Inguinal Section.—I have included eight inguinal sections in the list, because in performing Alexander's operation on cases of retroflexion of the uterus, I sometimes find it necessary to insert my index finger through the internal ring, break down adhesions, draw up a cystic ovary or a hydrosalpinx, and remove either through the ring.

Prophylaxis.—The keynote to great success in abdominal surgery is prophylaxis. We have made but little advance in treating some of the gravest complications met with after the section is performed, and we are successful in proportion to our power of preventing these complications.

Sterilisation of the Hands and Ligatures.—Intimately connected with the subject of prophylaxis is that of sterilisation of the hands, instruments and ligatures. I shall say but a few words on the subject. I now always use a watery solution ($\frac{1}{500}$) of the biniodide of mercury, and am, after three years, quite satisfied with it. The conclusion I have come to is that no known solution or method is adequate to effectually sterilise hands that have come into contact with certain kinds of septic matter, such as the pus from a stinking appendicular abscess, the uterine discharge from a case of acute puerperal septicæmia, or the pus from acute osteo-myelitis. After contact with such cases the surgeon should not operate for four days; or, if he must, then let him wear rubber gloves. With regard to ligatures, I use silk and catgut. I never now prepare my own catgut; I use the Ellwood-Lee gut and silk ; I have used this gut in 600 cases and I am satisfied it is aseptic.

Precautions during the Operation.—Only a word on two points. I have come to regard *warmth* as one of the chief aids in surgery. The room should be heated to 72° F.; a dry heat is better than a moist heat. The patient should have hot bottles about her, and cottonwool over her chest. Above all things the irrigating fluid should not be allowed to wet her coverings ; a body loses more heat when surrounded by wet cloths than when there is no covering whatever. The second point is that if the surgeon finds that he has to deal with a pyosalpinx, and there is no hope of getting the tubes away without contaminating the peritoneum, then it is much better to make an opening through the vagina, and drain the pus away, and leave the tubes. If this course were only adopted more often, hundreds of lives that are now sacrificed would be saved.

After-treatment.—During the past year I have tried some new drugs, and they have now become a great help to me.

Salicylate of Eserine.—This substance when given under the skin in doses of gr. $\frac{1}{50}$ has a wonderful effect on tympanites. Fifteen minutes after its injection the patient begins to pass flatus, and if an enema of mag. sulph., glycerine and water be administered at this time, the result is often most excellent. I have found that gr. $\frac{1}{50}$ may be given twice in six hours without danger.

Veronal.—I have used this drug to induce sleep. Ten grains in a cachet usually gives a long and restful sleep; the patient awakes refreshed without headache or nausea. It is the most satisfactory hypnotic that I have tried.

Heroin.—For the last two years I have used heroin in gr. $\frac{1}{20}$ doses hypodermically to induce sleep and relieve pain. It is an excellent drug, for it does not cause vomiting except in rare cases, and it constipates but little, and it does not cause tympanites to any extent. It may be used with good effect to help the action of veronal.

Digitaline.—I have discarded digitaline because the dose laid down by some is gr. $\frac{1}{100}$, by others gr. $\frac{1}{16}$, and I have had no good results from either. I now employ digitaline in mvii hypodermic doses. It causes no local trouble, and acts quickly and well in cases where digitalis is indicated.

Adrenalin.—In the treatment of shock I employ adrenalin, carbonate of ammonia by enema, strychnine, salt solution, and digitaline. After three years' experience of adrenalin I find it of very great value in the treatment of shock. I give it in m.v. dose under the skin. I have seen a patient almost killed by an injection of mxv; she was only saved by using nitrate of amyl. I personally think that m.v. is a sufficient quantity to be used, and this may be given every two hours. I get the best results by first injecting a quart of saline by the side of the breast, and 20 minutes later I administer the adrenalin.

After-word.—When the abdominal surgeon has received from the laboratory a drug that will cause sleep and relieve great pain without causing constipation and tympanites—when he has in his hands a drug that will purge after hypodermic injection—when he has a sufficient explanation of tympanites—and lastly, when he has various serums for administration in cases of peritonitis—then, and not till then, will the after-treatment of section cases be in a truly satisfactory condition.

Cremation in Tasmania.—A Cremation Bill has passed the Tasmanian Legislature, and *inter alia* makes it unlawful to cremate unidentified bodies or in cases where the Attorney-General, coroner, or police magistrate forbids. To cremate a body the consent of the Chief Secretary must be obtained, and the cremation must be done in an approved place. Hitherto there has been no law to prevent cremation in Tasmania.

THREE UNUSUAL CASES—CHRONIC ALCOHOLIC LEPTOMENINGITIS.

By W. Spalding Laurie, M.D., B.S., Werribee, Victoria, late Resident, Perth Hospital, W.A.

THE following cases, while they require an apology for the incompleteness and inexactness of the records, are worthy of note, because I am convinced that the condition, although rare, must often, especially in private practice, where a post-mortem examination is impossible, be overlooked. Furthermore, in a limited search among the works of standard authors I have been unable to find an adequate description of the condition.

Case I.—J.B., aged 42, coachman, was admitted to hospital on January 6th, 1903. He was working in the sun four days before, when he was suddenly seized with severe headache and giddiness; he was previously quite well; he retched several times after admission, independently of the taking of food, but he did not vomit. The headache was confined to the occipital region; there was no tenderness on pressure. The patient volunteered the information that there was a tendency to fall to the left side, but he had never actually fallen. He was accustomed to take a good deal of alcohol. No history of syphilis could be obtained. His temperature on admission was 99·4° F.; pulse 72, with no appreciable abnormality. The general condition was good. The pupils were equal, and reacted to light and accommodation; vision was good; there was no nystagmus or strabismus; hearing was good, and equal on both sides. There was no paresis of ocular muscles or of the facial muscles. The tongue was protruded in the mid line; there was no difficulty in deglutition. There was well-marked paresis of both hands and arms. He had some incoördination, as shown by his inability to place his index fingers together with his arms extended and his eyes closed. There was no paresis of the lower limbs; the gait was normal. The knee-jerk was more active on the right than on the left; there was no ankle clonus; the plantar reflexes were normal. There was no disturbance of sensation, and no loss of control over the bladder or rectum. On January 11th he vomited once after taking his medicine, but under treatment with potassium iodide and mercury he showed steady improvement until the 18th, when his headache again became severe and his temperature rose to 101° F. On the 19th he had a severe exacerbation of headache, and his temperature rose to 104·6°. He then had marked general flushing of the face, his giddiness was more marked, and his tongue deviated slightly to the right. The temperature remained irregular, and on the 24th the patient sank into a comatose state. He died at 6 a.m. on the 25th, with a temperature of 107° F. There were no signs of disease in the digestive, circulatory, respiratory or urinary systems.

Necropsy.—The bones of the skull were normal. The brain and dura mater were quite healthy. There was marked thickening of the arachnoid and pia mater covering the convex and under surfaces of the frontal lobes on either side, limited behind by the superior precentral sulcus. The membranes were quite opaque, yellowish-white and tough. There was no recent lymph deposit, and no excess of cerebro-spinal fluid.

Case II.—J.S., aged 48, hotel manager, was admitted to hospital on January 16th, 1903. The patient was in a dull, stupid condition, but the following history was with difficulty obtained from himself and friends. About eight years previously he woke up one morning with twitching of the fingers of the right hand. This persisted, and some four years later attacked the left hand. About 15 months before admission his legs began to feel heavy, and "pins and needles" and "creepy feelings" were felt in both feet and legs. He lost all power of walking only 10 days before admission. The patient lay on his back in a condition of semi-stupor; he would answer fairly sensibly when spoken to, but continually mumbled incoherently. He had marked coarse tremors of both hands, especially of the fingers, resembling somewhat the "pill-rolling" of paralysis agitans, but greatly increased on volition or excitement. He had similar coarse tremor of both eyelids and, in a less degree, of the lips. His pupils were equal, and reacted normally to light and accommodation. There was no nystagmus or strabismus. The knee-jerk was more active on the right side; there was no ankle clonus. The plantar reflex was of the extensor type on the right side, normal on the left. He complained of pain when the legs were touched, but readily distinguished between a touch, a pinch and a prick. Potassium iodide and mercury had no effect. He became comatose, and died on January 26th, with a temperature of 106·4° F.

Necropsy.—The bones of the skull and the dura mater were healthy. The arachnoid and pia mater were adherent, much thickened and opaque over the Rolandic area on both sides and slightly thickened over the posterior portion of the convexity of the frontal lobes. There was general venous engorgement of the membranes, with much œdema of the brain substance.

Case III.—T.R., aged about 50 years, was admitted to hospital on January 25th with left hemiplegia and developing coma. When seen by a physician two days before he had a temperature of 107° F., but had then no signs of hemiplegia. He was unable to give any history. He had been in hospital six months before with hæmatemesis and melæna. He had been a very heavy drinker. The coma gradually deepened. There was marked paresis, but not complete paralysis, of the left arm and leg. He died on January 27th.

Necropsy.—There was general venous congestion of the membranes of the brain. The pia mater and arachnoid were thickened and slightly opaque over the frontal and Rolandic regions, normal over the occipital lobes. The brain substance was very œdematous. The right lateral ventricle was filled with dark fluid blood.

This last case was, while under my observation, clinically one of cerebral hæmorrhage, but I include it on account of the meningeal thickening observed on post-mortem examination and the temperature observed two days before the onset of hemiplegia.

If we turn to what has been written on the subject of chronic leptomeningitis, we find that Gowers gives, perhaps, the best description. He says:—"Diffuse chronic meningitis is generally the result of alcoholism. . . . Focal chronic meningitis when not traumatic is syphilitic in most cases. . . . The diffuse chronic meningitis of alcoholism affects chiefly the convexity, and is slight in degree. The pia arachnoid is somewhat opaque, especially over the sulci, and there may be lines of opaque lymph along the sides of the vessels. The focal chronic meningitis of syphilis is often associated with a syphilitic growth or with disease of the walls of the arteries. There is much thickening of the pia arachnoid with opaque lymph, which glues all adjacent structures together. . . In another chronic form, which perhaps is only a later stage of the syphilitic inflammation, the inflammatory tissue has undergone fibrous transformation, and a thick layer of tissue, tendinous or cartilaginous in aspect, extends over a certain region, more often at the base than at the convexity, surrounding and compressing the nerves and uniting the membranes. . . . In chronic alcoholic meningitis, which affects chiefly the convexity over both hemispheres, the chief symptoms are headache, slight delirium, mental failure, and slight optic neuritis." Osler says, shortly, that chronic leptomeningitis is rarely seen apart from syphilis or tuberculosis. Bulloch, in Clifford Allbutt's System of Medicine, says :—" Apart from the truly gummatous lesions, it seems probable that syphilis can also cause chronic indurative leptomeningitis and pachymeningitis. The usual site of this is in the sulci of the convolutions, more rarely on the base of the brain. The change is essentially a slow thickening of the membranes either diffusely or circumscribed." Oppenheim says :—" Excluding the syphilitic forms, chronic meningitis is a rare affection. It occurs in cases of chronic alcoholism. It is found especially on the convexity of the brain, and is characterised by a slight cloudiness and thickening of the soft cerebral membranes. . . . We know nothing concerning its symptomatology, as the disease is generally an unexpected post-mortem discovery, or its symptoms are overshadowed by those induced by cerebral disease."

It is evident, then, that the condition is a rare one, and that in considering its etiology our attention must be directed to syphilis and chronic alcoholism. But the condition found in these three cases differed somewhat from that described by the authors I have quoted. While, in all, the thickening was confined to the arachnoid and pia mater, the dura mater escaping entirely, it will be noted that it did not involve the pia mater in the sulci, nor even that between the cerebral hemispheres, nor was there any adherence to the brain substance, as is the case in general paralysis of the insane.

It will be observed that the occipital lobes escaped in all cases. The symptoms bore a definite relation to the position and extent of the disease. The chief symptoms in chronic meningitis would appear to depend mainly upon the pressure exerted by the thickened, contracting fibrous membranes, and this pressure may be localised to some particular spot or area, or it may lead to general cerebral compression. Headache, vomiting, Jacksonian epilepsy, tremors, paresis and incoördination, optic neuritis and delirium, or loss of memory and general mental failure, may be expected in such cases. The temperatures recorded were, of course, cerebral in origin. The diagnosis as between lepto- and pachy- meningitis may be impossible, but it is often possible, as was actually done in case 2, to diagnose a case as one of chronic meningeal thickening. In the first case an intracranial tumour was suspected, but the signs and symptoms were too indefinite to justify surgical interference. I need not enter into the differential diagnosis from such conditions as general paralysis or paralysis agitans.

(Read before the Victorian Branch of the British Medical Association.)

A CASE OF LANDRY'S PARALYSIS.

A. S. Joske, M.D., Prahran, Victoria.

I WAS called to see E.G., aged 16, on February 5th, 1905. He lived in Elizabeth-street, and for four weeks previously to my seeing him had been staying at Mordialloc, and he practically lived on the water there all day. He came back complaining of a feeling of weakness in both feet; his boots were first uncomfortable, and then he found he could not move his feet. When I saw him he had absolutely no power of turning either legs or feet, but could rotate his body, and so move his thighs. He had no pain on pressure over the spinal column; had no temperature; pulse was excited and frequent; pupils dilated. In the course of the next few days the paralysis extended up both thighs, and gradually affected both arms and hands, so that though he could move his head fairly freely, he could not lift his hands to feed himself. He could rotate his body slightly, but if once his thigh was adducted he could not replace it, and if one leg became crossed under the other it had to be disengaged by an attendant, as he had no control at all over his limbs. His bladder acted freely and naturally. He always knew when he wished to empty his bladder. He had no power apparently to have an ordinary motion, but his sphincter ani always keep firm, and after his bowel had had a daily wash out he had no difficulty with voiding fæces in bed. Ten days after my first seeing him, Dr. O'Hara saw him with me, and agreed as to the diagnosis. Sensation was good; he had full knowledge which portion of his body was being touched, and could tell what toe or finger was being pricked by a pin. After about the twentieth day his sensations would be doubtful. If four fingers would be touching the calf muscles he would be doubtful if four or five fingers were in contact, but this was the only part about which his sensation was doubtful. He was placed on salicylate of soda from the outset of his illness, kept warm, and, as I have already said, his bowel was daily washed out, and after Dr. O'Hara saw him he was placed for some hours daily on an ice-bag; previously he had had the spinal column painted with iodine. We had a long special bag made for him, and he would lay on this for two hours and then go off for an hour; he liked the sensation to his back, and said he felt it did him good. On the 30th day of his illness, at about 8 p.m., he was taken with a sudden attack of dyspnœa. I saw him when he was getting over the attack, but he was still very blue and restless, pupils widely dilated, and looked ill. He had some diffusible stimulant always at hand after this, and though he developed two other attacks, also at night time, they did not affect him so much as the first attack. He became very thin and wasted in spite of taking a good deal of nourishment, but his skin never showed the slightest sign of breaking down in any way. After five weeks he gradually began to improve. His medicine had been altered after six weeks of salicylates to iodide of iron, but the improvement was very slow. His hands and arms first began to resume their functions and he could feed himself. I then had him taken out of bed and placed on a chair and wheeled about. He was rubbed every night with oil, and once he was up and about an ordinary battery was applied to his muscles. His improvement continued slowly, and he was taken out daily for a drive. The walking gradually improved, and now he is able to get about, is fat and strong, and can go to get massaged in another suburb, walking to the train by himself.

He came of a highly neurotic family, but there is no history of any tubercle or syphilis. This condition is a very rare one and is highly interesting. It may interest you to know that Landry first reported a case with symptoms such as I have described in 1859, and though many cases have been reported, personally I have only known of one other at the Alfred Hospital. With increased bacteriological knowledge the tendency is to define the disease as an acute infectious ascending paralysis, due to a toxæmic condition which may induce a myelitis, largely confined to the anterior grey matter of the cord, and which may in addition cause root involvement, peripheral neuritis, and changes in the medulla and cortex of a similar nature to those in the cord.

Etiologically, it is four times as frequent in adults as in children, and affects males three times as often as females. It follows many of the acute infectious diseases and conditions, and alcoholism and cold, as in my case, are frequent causes.

Bacteriological results have often been negative, but some observers have developed streptococcus pyogenes from cord cultures, and streptococci were also found in the lymph spaces of the grey matter. Some observers have produced spinal paralysis in rabbits by injecting intravenously staphylococcus pyogenes aurus and of bacillus coli. Both these particular forms have been found in spleen cultures obtained from fatal cases.

The disease sometimes runs a very rapid course, two days or less. Fatal cases usually end within ten days. Sometimes patients do not recover altogether, permanent injury being left. In some cases the onset is not as in this case, but the upper extremities are first affected. There is a case reported with all the typical symptoms in which a child, 10 years, was affected in the upper extremities first, and which ended fatally in four days. E. F. Bazzard reports:—1. He isolated a micrococococcus in pure culture from the blood of a patient who died. 2. An organism indistinguishable from this was found in large numbers in the external part of the spinal dura of the same patient. 3. A subdural injection of the cultivated coccus in a rabbit produced in a few days a rapidly-spreading palsy. 4. The same organism was found in the dura mater of the rabbit and isolated in pure culture from its blood. 5. The changes in the nervous system in both the patient and the rabbit were of the kind produced by toxins, and in neither case was the microbe to be demonstrated in the nervous structures themselves or in the pia arachnoid.

(Read before the Victorian Branch of the British Medical Association.)

CLINICAL AND PATHOLOGICAL NOTES.

INJURY TO THE THORACIC DUCT.

In excising tuberculous glands from the left side of the neck, just above the clavicle, near the middle line, in an Egyptian girl of about twelve years, I was clumsy enough to cut through the thoracic duct. The glands were bound down more than had been expected by inflammatory tissue, and after "delivering" the mass through an incision, which circumstances proved too small, I was obliged to do more cutting and less "dissection" than usual, in the course of which it was alarming enough to suddenly find a milky fluid welling up in the wound. The thoracic duct had been, as was now only too evident, involved in the inflammatory tissue. The incision was enlarged, and further dissection made it clear that the main duct had been cut completely through proximally to the junction with it of the lymph channels from the arm, head and neck, the former of which was clearly seen. To make doubly sure a fine probe was passed into the lumen of the proximal end, with the immediate result that venous blood welled out, showing that the probe had forced open the valve at the entrance of the duct into the great vein. Not knowing better, I attempted, by suturing the cut ends, to achieve the impossible result of a patent non-leaking duct, and closed up the wound after inserting a drain, at the same time fully expecting a fatal result sooner or later. It is because I found very little on the subject of this accident in the text-books that I venture to write these notes.

Cheyne and Burghard report two cases in which an injury to the thoracic duct was followed by complete recovery, notwithstanding a considerable amount of swelling due to extravasated lymph, which after some time suddenly subsided. They recommend firm pressure after close stitching of the wound, and conclude their reference to accidents to the thoracic duct by merely recording the fact that "the thoracic duct has also been tied in cases where it has been completely divided and the patient has recovered."

In Jacobson's "Operations of Surgery" reference is made to one case in which the duct having been opened, chyle escaped deep down in the wound with a fatal termination; and it is also there recorded that Professor Keen has published four cases of injury to the duct during operations, three of which recovered. Another authority states that the cause of death after ligature of the duct has been the extravasation of the chyle along the course of the duct on the vertebral column.

Rose and Carless infer that in the cases of complete section which have recovered, the duct probably opens by several mouths into the subclavian vein, only one of the branches having been injured. In the case under review the size of the cut vessel and the result of the dissection to expose it seemed to negative the existence of this condition.

Mr. Herbert Milton, of Cairo, tells me that he once wounded the thoracic duct in removing tuberculous glands; the wound being longitudinal, he sutured it with excellent result.

From what little I found concerning complete section of the duct I inferred that the proper course was to have ligatured the distal cut end. Having decided to do this, I found on opening up the wound that although the superficial part was sealed with lymph there was a collection of chyle in its deeper part. After ligaturing the distal end, from which chyle was still spasmodically escaping, I inserted a drain and closed the wound, which healed in ten days.

According to an indefinite history from the mother, the child had had some temperature for months before her admission for removal of tuberculous glands. During the ten days she was under observation before operation I could find no other cause for her temperature, which ranged between 99° and 102°, and so looked upon it as due to the presence of the diseased glands. When I saw her last, some ten weeks after the operation, she still had some slight fever without obvious cause, which, however, appeared to interfere with her general well-being exceedingly little. The occlusion of the duct seems to have caused no interference with her nutrition whatever. To account for this most favourable result we can only suppose that by means of anastomotic channels the lymphatic duct was found ready at once to take up the functions its more important fellow had been suddenly compelled to lay down.

E. Maynard Pain,
C.M.S. Hospital, M.B., Ch.M. (Syd.)
Old Cairo, Egypt.

A CASE OF SECONDARY NERVE SUTURE.

C.H., *æt.* 10, was admitted into the Adelaide Children's Hospital on May 30th, 1904, on account of paralysis of the left hand. Six weeks previously, whilst engaged in chip-carving at school, the boy was accidentally stabbed with a chisel in the hollow of his left elbow by the lad who was sitting next to him; when attended soon afterwards by Dr. Evans, of Willunga, no paralysis was observed, but three days later the child's parents noticed a loss of power in the wrist and hand. The wound healed by first intention, but no improvement occurred in regard to the paralysis. On admission it was found that the extensor muscles of the left forearm and hand were considerably wasted; that the supinator longus was also affected; that there was complete wrist drop; but no acknowledgment of impairment of sensation in the course of the distribution of the radial nerve could be elicited from the boy. The scar was half an inch in length and transverse in direction, just above and to the outer side of the bend of the elbow. Under anæsthesia on June 15th the usual incision for exposure of the musculo-spiral nerve was made, and the interval between the supinator longus and brachialis anticus muscles defined. The nerve trunk above and below the injury was lifted up, and by careful dissection the injured portion freed from the scar tissue, binding it down to the deep structures. As there was no apparent interruption of the continuity of the nerve, and bearing in mind the absence of sensory paralysis, Dr. Lendon decided to give the case a further chance, and therefore did not resect the injured portion, hoping that relief from compression by the scar tissue might result in restoration of muscular power. As soon as the wound had healed electricity and massage were employed, but after a prolonged course of this treatment there was no perceptible improvement, and accordingly on September 16th the nerve was once more exposed, and the cicatricial knot removed to the extent of half an inch; no difficulty was experienced in bringing the ends of the divided nerve together with fine wallaby tendon, one suture piercing the nerve through both ends and the others merely uniting the sheath of the nerve. For a few days the arm was kept at rest in a splint, then gentle massage was resumed as well as the battery. On leaving the hospital at the end of two months there was but very little improvement except that he had slight power of extension of the fingers. When, however, the patient presented himself again on February 23rd, 1905, it was found that he had completely recovered the power of extension of the wrist and also of supination; the wasting of the muscles was also less obvious.

For permission to report this case I am indebted to Dr. Lendon, Visiting Medical Officer. F. Suckling, M.B. (Syd.),

Late House-Surgeon, Adelaide Children's Hospital.
Adelaide.

MASSIVE SUBCUTANEOUS INJECTIONS OF SALINE SOLUTIONS IN PUERPERAL ECLAMPSIA.

A primipara, after 10 hours' labour, was seized with convulsions. I witnessed the fourth, which was typically epileptiform. Chloroform was administered, the os dilated manually, and delivery effected with forceps. During the next two hours the patient had four severe convulsions, and was quite unconscious between them. I then started injecting saline, by a syphon and hollow needle in the thigh, and administered hypodermically ¼ grain of morphia. When I next saw her, four hours later, the needle had come out, owing to the patient's movements, after only two pints had entered. She had three convulsions in the four hours, and was still unconscious. The needle was again inserted, and four pints of fluid injected in the next three hours. She had only one convulsion during that time. After the sixth pint she had no more convulsions, began to pass urine copiously, which was loaded with albumin. She was more or less stupid during the next 12 hours. After that she drank freely, and speedily recovered.

The interesting point in the case is the large quantity injected, the first two pints proving insufficient. It would be interesting to hear reports of other cases of puerperal eclampsia similarly treated.

J. E. Ramsay, B.A. (Syd.), M.B. (Lond.).
Mt. Magnet, W.A.

An appeal is being made in England on behalf of the Royal Alexandra Hospital for Children, Sydney. The Queen has manifested great interest in the movement, and a committee has been formed, including the Marchioness of Linlithgow, Countess Beauchamp, and Countess Carrington.

Queen Victoria Homes for Consumptives.—Sanatorium for Women at Thirlmere.—Required an Assistant Resident Medical Officer. Salary: first year, £100; second year, £150. Lady or Gentleman. Applications with testimonials to be sent to the undersigned on or before November 30th. Duties commence January 1st, 1906.—H. A. James, Hon. Sec., Athenæum Chambers, 9 Castlereagh-street, Sydney.

REVIEWS AND NOTICES OF BOOKS.

American Edition of Nothnagel's Practice: Diseases of the Blood. By Dr. P. Ehrlich, of Frankfort-on-the-Main; Dr. A. Lazarus, of Charlottenburg; Dr. K. von Noorden, of Frankfort-on-the-Main; and Dr. Felix Pinkus, of Berlin. Edited by Alfred Stengel, M.D., Professor of Clinical Medicine, University of Pennsylvania. Philadelphia and London: W. B. Saunders & Co. 1905. Melbourne: James Little. Price, 21s.

The large amount of study which has been devoted in recent years to the blood in its normal and pathological conditions has necessarily greatly widened our view of various morbid processes; and the English students and practitioners may be congratulated on having in this work a valuable collection of articles on this important subject by such authorities as Ehrlich, von Noorden, Lazarus, and Pinkus, together with important additions by the Editor, Dr. Alfred Stengel, of Pennsylvania. The wide divergence of views on some points connected with the significance of certain appearances presented by both the red and white blood cells finds expression in this volume in the opinions expressed by the different authorities quoted, so that the work can hardly be recommended as a text-book for students, but rather as a standard work of reference for physicians and pathologists who wish to know the views of the leading authorities.

Professor Ehrlich and Dr. Lazarus contribute the first part of this work, dealing with the clinical examination of the blood, and a discussion on its normal and pathological histology. To this part the Editor has contributed some valuable additions in the way of additional staining methods, etc., as well as references to various disputed points. Dr. Lazarus describes the clinical features of anæmia, and discusses very fully the symptomatology as well as the pathology and treatment of simple post-hæmorrhagic anæmia, simple chronic anæmia, and progressive pernicious anæmia. A lengthy account of chlorosis from all points of view is given by Professor von Noorden. Leukæmia is described in two articles. The first, on lymphatic leukæmia, is by Dr. Pinkus, of Berlin; and the second, on myeloid leukæmia, by Dr. Lazarus. At the conclusion of each part of the work there is a very full bibliography, which enhances considerably the value of this volume as a work of reference. It is, moreover, well illustrated, and can be confidently recommended as the best and most comprehensive work on the subject at present available in the English language.

A Text-Book of Legal Medicine. By Frank Winthrop Draper, A.M., M.D. (Harv.). Philadelphia and London: W. B. Saunders & Co., 1905. Melbourne: Jas Little. 8vo., 572 pages. Price, 18s.

This volume has been published primarily as a help to medical students. The author, who is Professor of Legal Medicine in Harvard University, speaks with the authority of one who has been for 28 years a medical examiner for the city of Boston. He has thereby acquired considerable experience asa medical jurist. The book deals with medical practice in its medico-legal aspect; the subject matter is admirably treated and well arranged in 33 chapters. These form a critical and moderately full summary of the knowledge accumulated since legal medicine began acquire the position of a separate study. The cases used in illustration are numerous, and many of them have occurred in the author's own practice. The statute law cited is limited to the Massachusetts enactments. Although there is a chapter on "Death from Poisoning," the subject of toxicology is not included in the volume. Similarly, the medico-legal relations of insanity and abnormal mental states is a branch purposely omitted. The author very properly regards these two subjects as requiring more extended treatment than this volume admits of. The information on recent additions to medico-legal knowledge includes a description of the serum test for human blood, which is sometimes referred to as the "Bordet-Uhlenhuth Test." No reference, however, is made to Icard's fluorescin test, which has its application in the prevention of ante-mortem burial. There are about 40 picture illustrations, which, with few exceptions, are borrowed. Some of these which relate to abnormalities of sex organs are unnecessarily aggressive, and disfigure the book, which otherwise has much merit, and which ought to hold its own among the many competitors from which students and practitioners have to choose.

A Text-book of Materia Medica, including Laboratory Exercises in the Histologic and Chemic Examination of Drugs, for Pharmaceutic and Medical Schools and for Home Study. By Robert A. Hatcher, Ph.G., M.D., and Torald Sollmann, M.D. Illustrated. Philadelphia, New York and London: W. B. Saunders and Co. 1904. Price, 8s 6d. Melbourne: Jas. Little.

The authors explain that the book was written with the object of popularising the laboratory method in the study of organic materia medica. This is distinctly an advance in the right direction, and the general plan of the work is evidently the result of educational experience, the facts being well systematised, carefully chosen, and very comprehensive in range.

First there is a simple study of the crude drugs, under headings, *e.g.*, roots, etc., the student having provided for him suitable schemes for each group, which he fills in in his notebook. The nature, habitat, description (official) chief constituents, therapeutic use, average dose, and, where needed, symptoms of poisoning, with suitable first aid, follow in order. A short, clear description of plant histology succeeds, concluding with the histology of some important drugs, even in the powdered state, an aspect of pharmacognosy which is daily becoming more important. A series of chemical experiments of a simple but instructive nature, and which often entail but little expense, permits the student in an interesting way to get a general knowledge of the chemistry of the drugs. Certain accessory matters are given in the appendix at the end of the volume.

The attention paid to the type, paper and binding might well form an object lesson to those who, having valuable information to provide, think it needful to pack it into the least possible space, without a common-sense regard being paid to the circumstances under which their work is to be consulted. The illustrations, mostly copied from well-known sources, are well chosen and fairly ample for reasonable requirements.

For a pharmaceutical student at work, or even the pharmacist who wishes to refresh and systematise and amplify his knowledge on the lines indicated, this handy volume is probably unrivalled.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH NOVEMBER, 1905.

"CONSUMPTION CURES."

Another cure for pulmonary tuberculosis has been announced at the International Congress on Tuberculosis at Paris last month, this time by Professor **Behring**, who is well known as the discoverer of the antitoxin treatment of diphtheria. Our knowledge of this discovery is so far imperfect, and likely to be so for several months, and it is, perhaps, even premature to say that Professor **Behring** has asserted that his method of treating tuberculosis is likely to prove a "cure for consumption." Yet it is in this light that the announcement of the discovery has been received by the general public, and it is well to take into consideration certain facts which bear upon the reputed success of any line of treatment of this disease.

Ever since **Koch** discovered the association of the tubercle bacillus with pulmonary tuberculosis an immense amount of original research has been conducted all over the world, and we can safely assert that to-day we know more of the etiology, pathology and morbid anatomy of this common yet serious disease than ever before ; and the knowledge which has thus been acquired is necessarily the vantage ground from which we can survey the possibilities and probabilities of the cure of this disease.

Two main conditions are necessary for the development of tuberculosis—the germ and the soil ; and just as in the botanical world the resulting plant will depend on the kind of seed and the adaptation of the soil to its requirements, so in tuberculosis everything depends on the vitality or virulence or the "strain" of the organism and the condition of the animal body to which it gains access. Professor **Osler** says : "The germ of tuberculosis is ubiquitous ; few reach maturity without infection ; none reach old age without a focus somewhere." These statements of **Osler** are supported by **Naegeli**, who, working at Professor **Ribbert**'s Institute in Zurich, found tuberculous lesions in 97 per cent. of bodies of adults in a series of 500 post-mortems. It is clear, then, that in a large percentage of cases either the seed or the soil is defective, and the tuberculous plant does not flourish. In other words, in a certain proportion of persons who are infected with the disease there is a natural tendency towards cure ; either the constitution has been sufficiently vigorous to resist the inroads of the organism, or the bacillus itself has been of low vitality and has not succeeded in producing the disease. This natural tendency towards recovery in a large percentage of persons must be considered in estimating the success of any method of treatment of the disease.

It has been emphasised over and over again that the success of the antitoxin treatment in diphtheria mainly depends on its being administered at as early a period of the disease as possible, and if treatment be delayed for three or four days it is very much less successful. So we know that in tuberculosis the success of any method of treatment depends very largely on its being applied at an early stage of the disease ; and this is just where the difficulty comes in, since this disease is so insidious in its onset, and patients are too often quite ignorant of the seriousness of their condition, or delay applying for treatment for various reasons until the disease has become well established, and then in a certain proportion of cases no method of treatment can be expected to stay its progress. It is contrary to all our knowledge and experience of this disease to expect that any method of treatment is likely to prove a cure for all cases and in all stages; yet this is the inference which is drawn by the general public from the announcement of a "cure for consumption." No serum or antitoxin, or any method of treatment, can be expected to deal with all the various complex morbid conditions which may be present in a case of pulmonary tuberculosis, and our object must therefore be primarily to prevent the possibility of infection, and all our efforts must be directed to that, rather than towards the discovery of any specific remedy, however important and valuable that may prove to be in certain cases.

Hence the enforcement of those public health regulations which happily are now in vogue, more or less, in all the States of the Commonwealth is of the first importance. The compulsory notification of pulmonary phthisis, which was approved of by the recent Australasian Medical Congress, the segregation as far as possible of advanced cases of the disease amongst the poorer classes, the dissemination of knowledge of the means whereby the disease is spread, and its dangers, are more likely to lead to permanently good results than any method of "cure," since prevention is always better than cure.

HOMŒOPATHY.

The discussion which took place at a recent meeting of the New South Wales Branch of the British Medical Association on the question of meeting homœopaths in consultation revealed a considerable divergence of views, not only on the propriety of meeting in consultation homœopathic practitioners, but also on the attitude of these practitioners towards their own particular line of treatment.

The aim of all our studies must be the benefit of our patients, and all our endeavours must be to ascertain in every case the pathological condition present, and then to seek to adjust our therapeutic methods towards removing as far as possible that morbid condition, as well as, by the way, relieving prominent and distressing symptoms. Treatment on these lines is essentially rational as opposed to empirical, but unfortunately, owing to the defective state of our present knowledge, we are obliged to adopt to some extent a line of treatment which is empirical. Thus, when we treat a case of diphtheria by antitoxin we are following a truly rational method of treatment, but when we administer mercury and potassium iodide to a syphilitic, we are using purely empirical methods. But with the advance in our knowledge of pathology and therapeutics, our treatment will become more and more rational, and that must be our constant aim.

The principles of treatment adopted by Hahnemann and his followers are essentially different, and so far from treating the disease from the pathological aspect, the treatment is directed simply towards removing symptoms. "According to Hahnemann's teachings, symptomatology leads scientific prescribing, no matter what the pathological condition may be." Because certain drugs are said to produce certain symptoms when administered in large doses, the homœopaths believe that these same drugs when given in infinitesimal doses will cure these symptoms. But we know that the same symptoms may be produced by a variety of pathological conditions, and to treat a symptom without reference to its pathological cause is to begin at the wrong end of the stick. This is the essential difference in the line of treatment adopted by homœopaths as opposed to allopaths. But, however absurd it may appear to us to expect infinitesimal doses of some drugs to have any physiological or therapeutical effects, we cannot absolutely deny that such results may be produced in some cases. It may appear highly improbable that one minim doses of ipecacuanha wine diluted with water would have any effect in allaying vomiting in certain conditions, yet this is a remedy recommended by so high an authority as Dr. SYDNEY RINGER, and proved to be efficacious by many. It is true that all apparent therapeutic results are open to fallacy—the *post hoc* is not necessarily *propter hoc*—and this holds good for all classes of remedies.

But the general trend of the discussion referred to was to the effect that homœopaths were self-deluded, that they were morally oblique, and adopted their system of treatment from motives of self-advertisement and financial gain. Such may or may not be true in some cases, but we are hardly justified in condemning as morally bad certain practitioners who we believe are honest in their convictions, however absurd such convictions may appear to be to us. But we on our part are justified in asking that a homœopath who is honest in his convictions of the truth of his line of practice shall prove his sincerity by restricting his practice absolutely to homœopathy.

THE MONTH.

The Study of Tuberculosis in America.

We have received the first annual report of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis in Philadelphia. This institution was founded in 1903 for the "Study of the Causes, Treatment, and Prevention of Tuberculosis, and the Dissemination of Knowledge on this Subject; the Treatment of Consumptives." It was opened in temporary quarters in a four-storey building, which was transformed into a fairly good modern hospital in a short time, and the details of the transformation are given to show how easy it is in any community to make provision for the treatment of the consumptive poor without waiting until a great deal of money is at hand and ideal conditions present themselves. When the wards were opened the number of cases rapidly exceeded the accommodation; and it is somewhat remarkable to learn that the fear of tuberculosis materially interfered with the organisation of the nursing staff. The problem was solved by opening a training school for girls who had been cured at the Whitehaven Sanatorium, and "the institute is thus doing a double good work—that of training women for the care of consumptives, and that of making an occupation for cured consumptives." In the selection of the medical staff, inasmuch as the institute was founded for the study of tuberculosis, as well as for its treatment and prevention, men not only of ability but with preliminary training for original research and advancement of medical science had to be appointed. At the end of the first year 16 medical men were on the staff, and the results of their labours are in a measure indicated by the records of cases which in bound form are said to consist of ten octavo volumes of about 1000 pages each. These records are full of scientific data and will form the basis of future scientific communications. The present report contains summaries of some of these. Appended to the report are several lectures delivered under the auspices of the institute by Dr. Trudeau, Professor Osler, Professor Sims Woodhead, Dr. Hermann Biggs, of New York, and one by Dr. E. Maragliano on "The Specific Therapy of Tuberculosis and Vaccination Against the Disease," which is printed in both Italian and English.

The National Association for the Prevention of Tuberculosis.

The annual meeting of the National Association for the prevention of Consumption (New South Wales branch) was held on October 27th. The hon. secretary, Dr. G. L. O'Neill, read the annual report, which stated that a leaflet, entitled "How to Prevent Consumption" had been compiled, and the Premier had directed the printing of 100,000 of these leaflets at the Government Printing Office. Arrangements were completed whereby 50,000 leaflets would be distributed among the State schools, with circulars to the teachers, embodying the suggestions of the association. The railway authorities had agreed to exhibit the poster issued by the Board of Health at railway stations, workshops, sheds, etc. The postal authorities had also consented to display it at post-offices. The executive had brought under notice of the Board of Health the desirability of municipal authorities throughout the State enacting by-laws for the prevention of spitting in public places. Letters had been sent to municipal authorities and medical practitioners in many towns regarding the establishment of sub-branches, but this attempt to enlist the sympathies and assistance of country districts had been almost unproductive. The report emphasised the necessity of securing the disinfection of houses vacated by consumptives. Outside the city there is practically no legal power to enforce such disinfection, which, if done at all, is only of the unsatisfactory kind performed by unskilled labour. The report and balance-sheet, the latter showing that the expenses had been defrayed by a friend of the cause, were adopted. Sir Philip Sydney Jones urged that necessity exists for the establishment of a hospital for advanced cases of consumption ; and on the motion of Dr. W. G. Armstrong, it was unanimously agreed that the compulsory notification of phthisis is advisable in the interests of the public health.

A Sanatorium for Consumptives in Tasmania.

At a meeting of the executive committee of the Sanatorium for Consumptives in Tasmania, held last month, good progress with the work was effected The hon. secretary read a letter from the secretary to the Premier, intimating that a report had been obtained from Dr. Elkington favouring the proposed temporary site at the rear of the New Town Charitable Institution, the land being about four acres in extent. He had been informed by the Secretary for Lands that the Government had decided to grant the committee a temporary site for the sanatorium at the rear of the New Town Charitable Institution. A letter was being awaited. It was then resolved that the honorary architect be asked to proceed with preliminary plans of the buildings proposed to be erected, prepare estimates, and that on receipt of the official letter from the Government granting the temporary site for the proposed institution, the hon. secretary prepare and advertise an appeal to the public for subscriptions. On the motion of Dr. E. L. Crowther, M.H.A., it was agreed that the hon. architect be asked to prepare plans of two two-bed shelters for male and female. It was also decided that the Amalgamated Miners' Association, the Amalgamated Enginedrivers' Association, the Queenstown and Zeehan Hospital Unions, the various life assurance and friendly societies should be written to for subscriptions. The hon. secretary explained that the delay in getting the movement to take a definite shape had been occasioned in endeavouring to obtain the support of the North in trying to get a suitable site on Crown land, free of cost, and in collecting information as to the best type of buildings. They now had information from competent and experienced authorities on the subject.

The Cox Eureka Consumption Cure.

A remarkable public meeting was held in Sydney last month under the presidency of the Lord Mayor to give to the public a *résume* of the results said to have been achieved by a " consumption cure discovered " by a man named McDonald Cox. This gentleman stated that his system of treatment was by inhalation. He is reported to have shown a little kettle used for generating steam, and a spout through which the steam was inhaled, and he expressed the hope that by a similar " accident " someone might yet discover a cure for cancer ! No evidence was offered to the meeting, or at any rate none appears in the report of the meeting in the daily press, that any of the reported cases ever suffered from consumption or that they were " cured " by this system of treatment. Yet, in the face of this, Mr. Law, M.L.A., moved a resolution in the course of which it was stated that the meeting had had submitted to it *unmistakeable proof* of the efficacy of the Eureka consumption cure. Two striking facts stand out in the report of this meeting—the first is that the nature of the remedy is carefully concealed, and, second, that there appeared a chance of making money out of it. It is the boast of the medical profession that any discovery which is of service in the alleviation of suffering or the cure of diseases is fully made known, so that all sufferers may have the benefit of the treatment at the hands of their medical advisers, and it is a pity that the discoverer of this supposed cure for consumption did not lay it before the only competent authority to pronounce upon its efficacy, namely, the medical profession, before bringing it under the notice of the general public. Until such a "cure" has been investigated by a proper tribunal it is only cruelty to hold it up before the poor, suffering consumptive; and we would warn any sufferer to beware before placing him- or her-self under the care of unqualified persons for treatment by a method which has not been proved to be of the slightest service in the cure of consumption, and which may do an immense amount of harm.

The Medical Curriculum in Melbourne.

Some amendments of the medical curriculum at the Melbourne University have been under discussion for a considerable time past. These have been discussed by Professors Allen and Osborne, and Drs. Barrett, Springthorpe, Moore, Syme, Stawell and Boyd, and as a compromise the amended regulations were agreed to and approved by the Senate. The following are the main features in the new regulations:—(1) The teaching of organic chemistry in the first year, to enable students to understand pathology; (2) the teaching of anatomy and physiology in the second year, as a groundwork for surgery later on—the work of the second year to be confined to anatomy and physiology; (3) the commencement of hospital and surgical work in the third year; (4) the lessening of the number of examinations by cutting out the examinations at the end of the second and fourth years, it having been found that the practice of holding the examinations in pathology at the end of the fourth year resulted in the neglect of medicine and surgery until the fifth year; (5) in future, students must attend hospitals for the study of all diseases, instead of two optional diseases, but this work may be done after examination if the student wishes. At the same meeting of the Senate the regulations regarding the new diploma of public health were adopted. A vote of thanks was accorded to Professor Allen for his efforts in drafting the proposals. In acknowledging the vote, Professor Allen said that the new regulations were a long step in the right direction, and would have the result of turning out physicians and surgeons who would be less academic and more practical than ever before.

Alcoholism and Insanity.

According to the report of the Lunacy Commissioners of Great Britain for 1904 there was an increase last year of 2630 in the number of persons in England and Wales certified to be insane, bringing up the total number of insane persons to 119,829, of whom 55,169 were males and 64,660 females. The average annual increase for the past ten years was 2575, and for the past five years 2644, so that in 1904 the increase was not quite so great as the five years' average. The causes of insanity are dealt with at length in the report, and the Commissioners place alcoholic intemperance at the head of the list. Taking the averages for the years 1899-1903, intemperance appears as an assigned cause of insanity in nearly one-sixth of the total number of cases, the percentage being 22·7 of the male admissions and 9·4 of the female admissions. The report on the insane in the different States of this Commonwealth do not place intemperance as a factor in nearly so large a proportion of cases; but, as Dr. Truby King, of New Zealand, states, it is very difficult to select from a number of contributing causes any one individual factor and emphasize that as *the* cause.

The Royal Society of South Australia.—At the annual meeting of the Royal Society of South Australia, held at the Adelaide University, Dr. J. C. Verco (president) occupied the chair. The annual report stated that the work of the society in the various departments of science had been maintained. Exchanges were made with 25 learned societies in the United Kingdom, 52 in Europe, 33 in the United States, 7 in Canada, 5 in Central and South America, 6 in India, Japan and the Pacific. Between 15 and 20 of the publications were sent to the other States of the Commonwealth and New Zealand. The society included 12 honorary and nine corresponding members, 65 fellows, and two associates. The space reserved for books and literature in the present quarters was hopelessly inadequate. The Government had been recently approached with a view to securing better accommodation in this respect for the Royal and other local societies, and it was hoped that steps would be taken to improve the prevailing conditions. The treasurer's statement showed that there was a credit balance of £190. Of this amount the president had presented £116 for the purpose of illustrating papers. The following officers were elected:—President, Dr. J. C. Verco; vice-presidents, Professor Rennie and the Rev. T. Blackburn, B.A.; treasurer, Mr. W. Rutt; members of council, Dr. Cleland and Mr. W. B. Poole; auditors, Messrs. J. S. Lloyd and D. Fleming; secretary, Mr. G. G. Mayo. Professor Bragg gave an interesting and instructive address on "The relation between electric field and current in the case of tonisation produced by Alpha rays," which he illustrated with chalk diagrams.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

A special general meeting af the Branch was held at the Royal Society's Rooms, Elizabeth-street, on Friday evening, October 13th, at 8.15 p.m. Present: Dr. A. J. Brady (in the chair) and 40 members.

Dr. Gordon Craig moved the following resolution: —"That homœopaths should not be met in consultation." He said that this question was one on which he did not know his own feelings until it had been brought before him in a practical way, and since then he had given the matter considerable thought, and his conclusions he had embodied in the resolution he now submitted to them. The attitude of the profession towards this question was not defined. In the old country the opinion seemed to be that homœopaths might be met in surgical cases but not in medical. In New South Wales opinions varied. The lecturer in Medical Ethics in the University of Sydney taught that homœopaths might be met in consultation in certain cases, but should not be called in consultation. Others held that they might be met in consultation in surgical cases but not in medical. Others again held that each case must be considered on its own merits. He thought that these were all weak compromises on the question. The parent Association had a precedent in the case of the late Lord Beaconsfield, who was attended by Dr. Kidd, who was a homœopath. Sir William Jenner was asked by her late Majesty Queen Victoria to meet Dr. Kidd in consultation. Sir William Jenner saw the patient, but did not meet Dr. Kidd in consultation. In Queensland and South Australia he understood the practice was not to meet homœopaths in consultation. As to the question of meeting them in surgical cases, not in medical, he thought it often difficult to decide when a case ceased to be medical and became surgical. It depended on the elasticity of the conscience of the consultant. He asked what were homœopaths? They were a peculiar sect which appealed to a peculiar sect. There were always a certain number of people who hankered after the occult and the obscure. Should they bolster up such a sect? If homœopaths wanted a consultation, let them consult among themselves. He asked the members present to consider whether they could honestly meet a homœopath, and to vote according to the dictates of their own consciences.

Dr. MacCulloch seconded the motion.

Dr. Walter Spencer thought they should not forget that homœopaths were qualified practitioners, but how educated men could follow the teachings of Hahnemann he could not understand. The public had to be reckoned with, and though it was not able to appreciate the differences which characterise the two methods of treatment, it was keenly alive to whatever savoured of inhumanity. Would they be better off for refusing to meet homœopaths? They might find themselves in a tight corner. He begged to move as an amendment the addition of the words "except on condition that the subsequent conduct of the case should be on orthodox lines."

Dr. F. H. Quaife thought the amendment would be futile. It would mean that the practitioner should be turned out, but if the homœopath really believed that he was benefiting the patient he would resist being turned out by the orthodox practitioner. He always understood that it was generally acknowledged in the profession that they should not meet homœopaths except under extreme circumstances. It was quite true that the public did not appreciate the difference between them, and the public had to be reckoned with. But if the profession had good ground for believing that homœopaths were wrong in their practice they should not back them up, but refuse to meet them except in case of emergency. He could not see his way to accept the amendment, and would vote for the resolution.

Sir Philip Sydney Jones, in seconding the amendment, said they had only to refer to English authorities to learn that great difference of opinion existed on this question. The Royal College of Physicians of London discountenanced its diplomates meeting homœopaths in consultation; the Royal College of Surgeons of Ireland forbade its members to meet homœopathic practitioners. On the other hand, Dr. Saundby, of Birmingham, who is a Fellow of the Royal College of Physicians of London and the author of the latest English work on medical ethics, said that there was no good reason for refusing to meet in consultation any duly qualified medical practitioner, nor should the adoption of a certain form of practice militate against that principle. The opinion he (the speaker) had expressed in his lecture on Medical Ethics at the University of Sydney had been correctly stated by Dr. Craig, and he still held that in certain circumstances one was justified in meeting homœopaths in consultation. When as consultant he had met homœopaths it had always been distinctly understood that the treatment of the case should be conducted on orthodox lines, and he thought that one was quite justified in meeting them on those conditions. We had to remember that the benefit of the patient was the first and fundamental principle on which one should act. We should ask ourselves the question—Will the proposed course of action be likely to benefit the patient, or will it not? Now, believing as we do that homœopathy has no foundation in fact, we must regard it as distinctly advantageous to the patient to secure for him treatment on sound therapeutic lines. On the other hand, to accept a homœopath as a consultant could not from one point of view be of service to the patient, because if true to our principles we could not adopt the advice he might give. Many years ago he (the speaker) formulated this rule for himself, and had always acted upon it. It was therefore with much satisfaction that he read only a few months ago that the French Society for Medical Defence in the 23rd article of its code sets forth that "a physician called in consultation by a homœopath may meet him on condition that the result of the consultation shall follow the rules and principles of regular therapeutics; a homœopath should not be accepted as a consultant." In any surgical emergency, such as flooding, the question of the propriety of meeting a homœopath must be waived. Common humanity demands that it should. No hard and fast rule could be laid down. He thought the line of action which he had suggested and practised was in accordance with reason and right feeling.

Dr. Stewart McKay had no sympathy with Dr. Craig's motion, and agreed with the views of Sir Philip Sydney Jones. He thought that there were three reasons urged against meeting homœopaths:—First, that they were not qualified practitioners; second, that their ethics were at fault; third, that they meployed drugs that we did not approve of. As regards the first point, it was well known that some of the homœopaths were as well qualified as the orthodox practitioners; they had studied at the same medical schools and had the same degrees, so that that objection had no weight. As regarded the second point, if their ethics were at fault they should not meet them for the same reasons that they should refuse to meet any other practitioner guilty of unprofessional conduct. But he thought the main reason was the third one, and he did not consider it within the scope of that Association to dictate to any practitioner what particular line of treatment any member was to adopt. If a practitioner found benefit to his patient by using certain drugs or in certain doses, they should be at liberty to use them. He could not support Dr. Craig's motion. He agreed with Saundby, for he maintained that properly qualified medical men should be admitted to all professional corporations and societies, and should be accorded every professional courtesy, irrespective of the theories held by them. A homœopath's adhesion to a therapeutic proposition, however absurd we may deem it, should not, by itself, justify his professional excommunication.

Dr. MacCulloch asked if homœopaths were eligible for membership of the Association ?

The Chairman replied that there was no rule against their being elected on the ground of their being homœopaths.

Dr. Nolan had been thinking over the question since learning that it was to be discussed that night. It was not a matter of a practitioner prescribing different drugs—he had a perfect right to do so; nor of his prescribing them in minute doses, however absurd it appeared to them—he was at liberty to do so. But the point was, Did those who practised in that way really believe in it themselves ? Were they honest in their opinions ? If a practitioner really practised homœopathy he did not see why they should not meet him. If, however, he took up that line of practice to make the public believe that he possessed some mysterious knowledge which the orthodox practitioner did not possess, and so make the name " homœopath " a means of advertising himself, then he thought the profession should refuse to meet him. He did not think any practitioner at the present day treated his patients strictly on the lines laid down by Hahnemann, and if he did not, he had no right to make the public think that he treated them by homœopathy. He regretted that the matter had been brought forward, as it was not of sufficient importance; he did not think it advisable to pass any definite resolution on the subject, and would prefer to leave it to each man to act as he thought fit.

Dr. W. Chisholm could not help feeling that the medical profession, like the State, was suffering from too much legislation. He thought it far better to leave things alone, and not pass any resolution. No resolution would be of any service, as they would not carry public opinion with them. Dr. Quaife had referred to the necessity of meeting homœopaths or any ostracised practitioner in cases of emergency. But who could define that term ? Take the great emergency of hæmorrhage. Should they meet a homœopath in a case of hæmorrhage from the femoral artery, for example, and refuse to meet him in a case of hæmoptysis ? He supported Dr. Spencer's amendment as the most satisfactory method of dealing with this question.

Dr. Hinder said that in case of urgency their line of action with regard to homœopaths should be exactly the same as regarded the ostracised men, that is to say that the consultant should insist on the discharge of the homœopath if the patient desired to obtain his advice. This could be done at once if the patient so desired, and would entail no hardship on anyone. The consultant, of course, must go in an emergency, but he must not consult with the homœopath. He thought they should lay down a definite rule one way or the other; no half measures were, in his opinion, to be considered satisfactory. He would like to suggest the taking of a ballot of the views of all the members of the Association on the question.

Dr. Hankins thought that as they were an independent community there was no necessity for them to be guided by the opinion of men in England, and that they were quite able to formulate a line of action for themselves. Three arguments had been used in favour of meeting homœopaths. First, that although the consultant might know he could do no good, he preferred to accept the invitation and the fee, rather than let it go to some other man in the next street. This was a mean reason for the action. Second, often the feeling of friendship came in. If there were a definite ruling against meeting homœopaths, the consultant would be relieved from an unpleasant situation. Third, the plea of humanity had been raised. He agreed with Dr. Hinder as to the course of action to be adopted, and no charge of inhumanity could be laid against one who acted in that way. He was in favour of Dr Craig's motion, but would like it to go further, and would move as an amendment the addition of the words, "That the meeting of homœopaths in consultation is inconsistent with membership of this Branch, and that steps be taken to alter the articles of association accordingly."

Dr. Camac Wilkinson was glad that the matter had been brought forward. He regretted that, while a young surgeon had the courage to propose that we should have no dealings with homœopaths, leading physicians such as Sir Philip Jones and Dr. Spencer disapproved of this straightforward policy. The argument that homœopaths should be met in certain emergencies on the score of humanity had been already disposed of. The consultant should take full responsibility of the future conduct of the case, and not prejudice himself by advising a course of treatment which he considered the best, but which he had no guarantee would be carried out. One of the chief reasons for men calling themselves homœopaths was because it was a paying game. Homœopathy was a cult which based itself on self-delusion, and one which nowadays must be classed by all educated medical men with Christian Science. Christan Science could do as much for a patient as homœopathy; both appealed to the emotional element, and both had their sordid phase. Homœopaths did not occupy in the profession the position of ordinary medical men; and if it were right for medical men to meet them in consultation—especially if it were right for surgeons to meet them,—then there was nothing to prevent physicians and surgeons being attached to homœopathic hospitals. This, however, would be impossible, since it was recognised that the methods of the homœopaths were not those which appealed to ordinary medical men. He would rather meet one of the men on the ostracised list than a homœopath. He thought it an unwritten law of the profession that homœopaths should not be met in consultation. He saw no opportunity for compromise, since such consultations were not in harmony with professional feeling, and he considered Dr. Craig's motion to be the only course to be adopted. If consultations with homœopaths were approved, then they must meet Christian Scientists.

Dr. Craig accepted Dr. Hankins' amendment.

Dr. Crago said he was sorry that this resolution had been introduced, as the subject was one on which considerable difference of opinion existed. Personally, he had never been able to see any great breach of ethics in meeting a homœopath in consultation, provided, of course, that the said homœopath was a qualified man and a reputable practitioner. He (the speaker) was in London at the time of the illness and death of Lord Beaconsfield, when considerable controversy took place over this matter, both in the profession and out of it. Dr. (afterwards Sir Richard) Quain met Dr. Kidd, a homœopath, in consultation, but Sir William Jenner, in his visit to the distinguished patient by command of the late Queen Victoria, ignored the presence of Dr. Kidd as a medical man. Jenner's action met with the approval of a majority of the Fellows of the Royal College of Physicians in the election for president of the College, which took place shortly afterwards. Considerable divergence of opinion existed in the views expressed in the books on ethics compiled by De Styrap and Saundby. The former stated that "no one can be considered a regular practitioner or a fit associate in consultation whose practice is based on an exclusive dogma such as homœopathy, *et hoc genus omne*. . . . Indeed for a legitimate or orthodox practitioner to meet a professor of homœopathy in consultation is a dishonest and degrading act." (The late Sir George E. Paget in a paragraph printed as a footnote, dissented from the author's views.) Saundby, while, as a Fellow, obeying the resolution of the Royal College of Physicians, in declining to meet homœopaths, thinks that the resolution required reconsideration and was evidently of opinion that the only sound rule was the one maintained by him that consultation was permissible between all duly qualified medical practitioners, and that the mere adoption of certain doctrines should not abrogate that fundamental principle. As a licentiate of a college that had passed a stringent resolution on the subject, he (Dr. Crago) should feel personally bound to observe it; at the same time he would prefer that as far as the British Medical Association was concerned it should be left to the good sense of the members to act as they thought best.

Dr. Sinclair Gillies considered that homœopaths were divisible into two classes—those who honestly practised homœopathy and those who, while calling themselves homœopaths, practised allopathy. The honest homœopath could not be met because meeting him simply meant covering a practitioner whose methods were dangerous, and one who could not be expected to carry out the consultant's instructions afterwards. Every individual in the profession had the right to refuse to meet anyone whose methods he considered unjustifiable or dishonest. The mere fact of being a qualified medical man did not make consultation with him compulsory. Would the profession be doing right in meeting a man who, for instance, believed he was doing his duty in treating a severe case of diphtheria with minute doses of calomel? Could such a man be expected to carry out intelligently serum treatment? The man who practised allopathy while calling himself a homœopath used the title simply to attract a certain class of people, and by so doing labelled himself a quack. Such a man could not be met in consultation, as his methods were not honourable. He heartily supported Dr. Gordon Craig's motion.

Dr. F. H. Quaife could not understand there being any difference being made on the score of the social standing of the patient. The question they had to consider was whether they approved of homœopathy. He had been brought up to regard homœopathy as humbug; but he still believed that humanity might demand their meeting a homœopath or any kind of irregular practitioner in a case of emergency.

Dr. Gordon Craig, in reply, said that their course of action as regards homœopaths should be on a par with that meted out to men on the ostracised list. There was no guarantee that the subsequent conduct of a case would be carried out on orthodox lines. Who could see to that? He had listened to Sir Philip Sydney Jones, but had not heard one convincing argument. He thought that it was a confession of weakness to agree to consult with a homœopath but not to accept a homœopath as a consultant. He did not wish, as Dr. McKay had suggested, to dictate to any medical man how to treat his patients; but the homœopath merely treated symptoms, and the ordinary practitioner based his treatment on the pathological conditions present. He quite recognised that a medical man might be called in an emergency to a case under the care of a homœopath, and he should go and do his best for the patient; but that was not a consultation.

The Chairman then put Dr. Spencer's amendment, and declared it to be lost. Dr. Craig's motion, as amended by the addition of Dr. Hankins' words, was then put, and declared carried by a large majority.

Dr. G. E. Rennie then moved the following resolution:—"That in the opinion of the Branch it would be advantageous to the health of the young in this State and conducive to their educational progress if the school terms were arranged with more consideration of the periods of the year suitable or unsuitable for study. That, therefore, it is advisable to curtail or abolish the midwinter vacation, and add the time so gained to the end of the present midsummer vacation. That this resolution be forwarded to the Minister for Public Instruction and to the governing bodies of the principal private and denominational schools." He said that in doing so it was not necessary to say much, as the resolution spoke for itself. It had been felt for some time past that in the interests of both pupils and teachers it was desirable that the summer holidays should be prolonged, since the hot weather of January and February, in Sydney at any rate, rendered satisfactory work in the schools almost impossible. The Department of Education were anxious to make some change, and were at present in communication with the Universtiy Senate with a view to harmonise as far as possible the time of the holidays in the University and in the schools. He read a letter from Dr. Pockley, the vice-president, in which he strongly supported the resolution. He hoped the resolution would be agreed to unanimously, so that the Education Department would have their hands strengthened in their proposed action.

Dr. F. H. Quaife was strongly in favour of the resolution, and would second it if the word "abolish" was omitted.

Sir Philip Sydney Jones was very glad that that matter had been brought up, as he had long advocated the necssity for a change in the direction indicated.

Dr. T. Storie Dixson also supported the resolution, but was not in favour of curtailing the midwinter vacation. He had visited one of the largest public schools in America and found that it was closed for three or four months of the year, and the work done was excellent.

Dr. **Litchfield** thought that the midwinter vacation could not be shortened much more than it was in the public schools, and he agreed with Dr. Dixson that a good break in the midwinter was necessary.

Dr. **Reginald Bowman** considered that there should be no shortening of the midwinter vacation. He had for the last 17 years been medical officer to the King's School, and he felt that the boys needed the long rest in the midwinter. He would be in favour of the resolution if the extra holidays to be added to the summer vacation were taken from the Easter and Michaelmas holidays.

Dr. **Spencer** said that this resolution was too sweeping in its scope. They had to remember that the majority of the children attending the public schools belonged to the poorer classes, and the prolongation of the summer vacation would not be the best thing either for these children or their parents.

Dr. **Rennie** agreed to accept the suggestion that the words "Easter and Michaelmas" should be inserted in place of the word "midwinter."

The **Chairman** then put the resolution as amended, and it was carried with one dissentient.

A meeting of the Branch was held at the Royal Society's Room on October 27th; the President (Dr. J. L. Beeston) in the chair. About 30 members were present.

Dr. T. P. Connolly, Royal Prince Alfred Hospital, was elected a member.

Dr. W. H. **Read** read a paper on "The X-rays in the Diagnosis of Intrathoracic Morbid Conditions." (See p. 580.)

Dr. L. **Herschel Harris** said:—In the first place he wished to congratulate Dr. Read on his very interesting and excellent paper, and compliment him on the splendid skiagrams he has exhibited. The subject he has dealt with is one of very much interest, and already a great amount of work has been done in this connection. About the first to investigate the subject of radioscopy of the chest were two Frenchmen—Bergonié and Carrière, early in 1896. They dealt mainly with pleuritic effusions. They noted that the lower limit of an effusion was ill-defined, especially on the right side, where the dulness merged into that of the liver. The upper limit they found to present variable features—(1) it may coincide with the classic curve of Damoiseau; (2) it may be concave above, the opposite to that curve; (3) it may be horizontal. When the upper surface of the liquid presents both to percussion and the fluoroscope the curve of Damoiseau we may be sure that the convex part corresponds to a hyperæmic or atelectic area, for if we make the patient cough violently or take four or five deep inspirations we may see that the surface becomes horizontal instead of convex. In all their examinations the state of the lung parenchyma above the effusion was carefully examined, and they draw the following conclusions, viz.:—When the thorax above the effusion is uniformly transparent, the prognosis is good; there is no fear of pulmonary tuberculosis. When opacities of more or less unequal shape, which do not disappear with deep inspiration, are found above the liquid, it is quite a different matter; then it is a question of bacillary infiltration, and our prognosis must be guarded. These men were the first to note that the shadow cast by an empyema was less dense than that of a simple pleuritic effusion. In February, 1900, Dr. Hugh Walsham contributed a paper on the "X-rays in Diseases of the Chest." His most important observation was in noticing the position of the diaphragm in cases of pulmonary tuberculosis. On the affected side the diaphragm was higher and the movement more restricted than on the healthy side. Quite recently, Dr. Orton, of St. Bartholomew's Hospital, in a paper on "Thoracic Aneurisms," has pointed out the necessity of examining a patient from four different points—anterior, posterior, right lateral, and left lateral. He agrees with Walsham that in cases of aneurism the heart lies more transversely than in health, the right side being pushed down by the aneurism, a position which tends to raise the apex. Stereoscopic views of aneurisms are advisable, and those of us who were fortunate enough to see the magnificent stereoscopic work of Mr. Fryett, of Melbourne, at the recent Medical Congress, will well realise this. At the same time it is well to remember that mistakes are easily made in many cases. It may prove of interest to quote two of his own mistakes. The first case was one that he diagnosed to be a malignant growth of the mediastinum, which on post-mortem examination proved to be a huge thoracic aneurism filled with blood-clot. The second case he diagnosed as one of pulmonary hydatid, and on the strength of his diagnosis an operation was performed. It turned out, however, to be a case of miner's phthisis. To sum up, he might say that he considered the fluoroscopic examination of the thorax to be of very great value, but it must always be taken in conjunction with the physical signs and symptoms, which should previously be thoroughly investigated.

Dr. **Connolly** exhibited three skiagraphs of hydatid of the lung. He then explained that these were of interest particularly from a diagnostic point of view. The three cases were those of children aged 7 years, and the hydatid was confined to the apex of the lung. Two of these were diagnosed as acute apical pneumonia, but as some of the signs persisted after the temperature had fallen to normal, skiagraphs were taken and a correct diagnosis obtained. These three cases were operated upon and did very well.

Dr. W. J. **Stewart McKay** read notes on four cases of Laminectomy.

Dr. **Crago** said he performed laminectomy on a patient in the Sydney Hospital during the time he had charge of Dr. Fiaschi's beds, but the patient did not get bed sores, and he had lately assisted another surgeon at a similar operation where no bed sores developed, so he doubted whether the operation had any special predisposition to bed sores.

Dr. J. **Macdonald Gill** said that he had listened to Dr. McKay's paper with great interest, and quite agreed with what Dr. McKay had said, that every case of spinal caries with paraplegia should be treated for three months by rest and extension, and if there was no improvement then that laminectomy should be done; but he would go further than that. Why wait for three months? Probably a month or six weeks would be sufficient. He would judge each case on its merits. If, for instance, after a short rest the paralysis was still increasing, there was probably an abscess there; again, there might be a slight evening rise in temperature, or other indication of pus. In any case, it was a serious matter to delay the operation too long, as permanent degenerative changes might be set up in the cord. With regard to hydatid disease of the spinal column, his experience was limited. He was responsible for recommending the operation in the case that Dr. Chisholm had referred to. In this case the diagnosis was fairly clear; there was a scar in the abdominal wall where an operation for hydatid had been performed some years before; there was a diffuse swelling over the lower lumbar spines, not particularly tender, but the man (aged 57) complained of such intense pain that he was willing to have anything done to get relief. There was no paralysis, but the knee-jerks were both absent, pointing to pressure on the third and fourth lumbar nerve roots. Although the result was unfortunate in this case, yet he (Dr. Gill) would recommend an exploratory operation in any similar case, as the prospects of the patient if left alone were absolutely hopeless. In conclusion, he thought that any case of spinal disease in which there was a reasonable probability that the cause of the trouble was an innocent tumour or a hydatid should be subjected to an exploratory operation. He congratulated Dr. McKay on his paper.

Drs. **Scot Skirving**, **Chisholm**, **Binney** and the **President** also discussed the paper.

Dr. **McKay**, in reply, said that he could not agree with Dr. Chisholm in his view with regard to laminectomy in traumatic injury. He thought that no matter what our views may be as to the advisableness of operation in cases of paralysis due to Potts' disease that at least we should endeavour to relieve the pressure on the cord in traumatic cases by an operation.

Queensland.

A meeting of the Branch was held at the School of Arts, Brisbane, on Friday, October 6th, 1905.

Present: Dr. Turner (in the chair), eleven members, and one vistor.

Dr. **Thomson** showed and read notes of a case of severe injury to the skull.

Dr. **Hawkes** showed :—(1) An endocyst of hydatid of pleura. (2) Varicose saphena veins removed by Mayo's method, with the instruments used at the operation. (3) Appendix without peritoneal coat. (4) Prostate removed by suprapubic method. (5) Cancer of cæcum.

The minutes of the last meeting were read and confirmed.

Dr. **Thomson** explained that the Dengue Report would be published in an early number of the A. M. Gazette (see p. 616), and suggested that the Government should be asked to print it as a State paper

Dr. **Love** suggested that the hon. secretary should ask the editor of the *A.M.G.* what would be the charge for 100 copies of the report, and explained the circumstances which prevented him from securing the appearance of the report in the programme of the Congress.

Correspondence.—1. From the Commissioner of Public Health, explaining how certain members had not received their fees. 2. From Drs. Hallen and Woolforde, with reference to a disagreement between them, and asking for adjudication. Drs. Turner, Gibson, Hopkins, Brockway and Love discussed the subject, which was referred back to the Council.

Dr. **Hawkes** read a paper upon "The Treatment of Epilepsy." (To appear in a future issue.)

Dr. **Love** believed that epilepsy was always reflex in the beginning. He had never seen a case which had been cured by the bromide treatment, but some by treatment with nitro-glycerine; nitrite of amyl was of great value in the status epilepticus. He had seen one case in which the administration of bromide had caused pharyngea sicca and dryness of the larynx with aphonia. He had found phenacetin of value in cases where the fits were preceded by rises of temperature, and also in nocturnal cases. He mentioned a severe case in which the removal of the ovaries had resulted in an absence of seizures for two years.

Dr. **Turner** remarked that in the recurring convulsions of children the cause was almost always overfeeding and too many sweets. In cases of petit mal in children reduced diet was always very beneficial. He related a case which had appeared to be quite hopeless, where cure had resulted apparently in consequence of the patient having contracted scarlet fever.

A general meeting of the Branch was held on Friday, November 3rd, 1905. Sixteen members were present.

After the minutes had been read and confirmed, a communication from the Secretary of the "Section of State Medicine and Medical Ethics" at the late Congress, concerning the amalgamation of the various medical organisations throughout Australasia and New Zealand, was read.

Drs. **Love** and **Gibson** moved—"That nominations be received at the annual meeting." This was carried, and an interesting clinical evening followed.

Dr. **Hopkins** showed a prostate gland enucleated by Freyer's method.

Dr. **Wield** showed placentæ and membranes from a case of triplets.

Dr. **Love** showed—(1) Extrauterine gestation—tubal pregnancy which had ruptured. In this case the patient had never missed a period. (2) Piece of muscle from behind sternum from a case of trichinosis which had occurred in South Australia. (3) Trichina in muscle (microscopic). (4) Myeloid sarcoma, rich in giant cells.

Dr. **Turner** showed blood preparation from a fatal case of leukæmia in a child of four, in which there was no enlargement of spleen or of external glands. Blood count—red cells, 808,000 per c.m.; white cells, 68,200 per c.m. No polymorpho-nuclears. Large mononuclears in large excess, forming large majority of leucocytes.

Dr. D. **Cameron** showed the cap, shirt and trousers of a boy struck by lightning, showing tearing as if by violence, but no burning or singeing. The only injuries seen on the boy were singeing of his hair at the back of the head and a small patch of skin taken off left side of pelvic region.

Dr. **Hawkes** showed—(1) Uterus with large cervical fibroid, and small fibroid inside the uterus which caused bleeding. (2) Case of cervical fibroid where chief symptoms were those of cystitis. (3) Mixed tumour of testicle; began four years after a blow. No recurrence seven months after operation. (4) Single tubercular gland removed from submaxillary region. (5) Large lymphatic varix of upper arm, which had extended from axilla to below elbow. No filariasis found after operation (blood not examined before). No other varices. (6) Goitre removed from case of Graves' disease. When first seen very vascular; X-raying for four weeks hardened it and lessened its size. Removal of right lateral and central lobe reduced the frequency of the pulse to normal and relieved other symptoms. Only a trace of exophthalmos remains. (7) Hydrosalpinx, whose chief symptom was pain. (8) Recent thrombosis of veins, which was removed at once; healed up by first intention, and patient was at work again in a week. (9) Crateriform ulcer (described by Crocker) from left molar region. History of scab for two years. Increased in size during last six months. Was removed freely. No recurrence. (10) Appendix from woman, aged 22. Used to cause colic and appendicitis. Patient had also retroverted uterus. Appendix was large and bulbous, contained an enterolith and fæcal matter above it. (11) Appendix from girl of 17. Seen 12 hours after bad attack; operated 12 hours later. Perforation found below bulbous appendix, containing an enterolith. It was adherent to colon, well up towards kidney region. There was some peritonitis and serous fluid slightly walled off. Case was nursed in Fowler's position. (12) Appendix from male, *æt.* 19, thick end, containing concretions, and adherent. (13) Appendix from child of 9, thickened and showing miliary tubercles on its surface. Similar tubercles on cæcum, ileum and part of ascending colon. Case recovered, but died later from tubercular disease of bowel. (14) Appendix, very long. No attacks of appendicitis with pain on right side, but attacks of pain on left. Exploratory incision showed appendicitis and appendix adherent to sigmoid flexure. No attack since operation, some months ago. (15) Appendix. Attacks associated with dysmenorrhœa; were thought due to ovarian trouble. Appendix found adherent to broad ligament, and inflammation around. Attacks were pre-menstrual, and the appendicitis was probably caused through pre-menstrual rise of blood pressure. (16) Appendix from case where intermenstrual and pre-menstrual pain were due not to ovarian but to appendicular inflammation. Possibly as in last case the pre-menstrual pain can be explained by the appendix having a supply of blood from the ovarian artery. (17) Appendix found adherent to broad ligament; pre-menstrual pain. (18) Long appendix, adherent to sigmoid, lumen obliterated, no enterolith; used to have vomiting, rise of temperature, and tenderness and pain on left side. (19) Appendix. Obliterative appendicitis. Attacks for three or four years. Adherent to right side, almost up to gall-bladder. Movable kidney also on right side stitched at same operation. (20) Appendix adherent to broad ligament. Contained a concretion which had almost ulcerated through, as shown by a black rim on the specimen. (21) Appendix from a man who had umbilical pain in his attacks. No pain at McBurney's point. Short, stumpy, and adherent below and to the right of umbilicus. (22) Appendix from a case where symptoms pointed to ovarian pain, pre-menstrual in character. Appendix hung over brim of pelvis, and contained a fair number of concretions. (23) Long appendix from man. Operated in third attack. Pain referred to umbilicus, but appendix found adherent in renal region. (24) Appendix from a boy. Several attacks, one typical and two with epigastric pain and vomiting, attributed to gastric derangement. In this case on making the usual incision no small gut could be found. On opening by the gastro-enterostomy incision still only large intestine could be found. Finally the cæcum and part of small intestine were found to have gone through the foramen of Winslow, and the appendix was adherent there behind the stomach.

Dr. Robertson showed a large polypus removed from the posterior nares.

An interesting discussion followed the exhibition of these specimens.

South Australia.

The monthly meeting was held at the University on October 26th, 1905. The President (Dr. Lendon) presided over a moderate attendance of members and one visitor.

Exhibits.—A skiagraph of a renal calculus, and the stone removed by subsequent operation, were shown by Dr. Newland, who also exhibited several other photographs.

The minutes of the previous monthly meeting were confirmed.

Correspondence.—A reply was read from Professor Stirling to the vote of thanks passed at the last meeting. Other correspondence was referred to the Council.

Drs. Lendon and W. J. Hayward were appointed to represent the Branch on the ethical committee recommended by the Ethics Section of the recent Congress.

Papers were then read by Drs. Sangster, jun., Newland (two papers) and Suckling. (See pp. 584 and 593.)

Victoria.

The usual monthly meeting of the above branch was held on Wednesday, October 18th; the President (Dr. H. W. Bryant) in the chair.

Correspondence was read from the Council of Churches requesting the Branch to urge upon its members not to give certificates for Sunday burial except in cases of undoubted necessity. Dr. Fox moved—"That the Victorian Branch of the British Medical Association sympathises with the efforts of the Council of Churches to secure a free Sunday, and urges the co-operation of the members of the Branch in carrying out this object." This was seconded by Dr. Joske, and carried.

Dr. A. S. Joske read notes on "A Case of Landry's Paralysis." (See page 590.)

The case was discussed by Drs. Weigall and Fox.

Dr. W. Spalding Laurie communicated notes on "Three Unusual Cases—Chronic Alcoholic Leptomeningitis." (See page 588.) In his unavoidable absence they were read by Dr. Henry Laurie.

Dr. Weigall said that Case I, so far as symptoms went, was not unlike one of heat apoplexy, especially as there was no history of symptoms previously to the exposure to the sun nearly three weeks before his death. He quoted a case in which a woman, after running for a train on a hot day, collapsed with vomiting and a subnormal temperature. She gradually became worse, with aphasia, agraphia, alexia and facial paralysis. As she was becoming worse he trephined, and found a condition of multiple hæmorrhages from the pia arachnoid. After drainage there was complete recovery. Was it not possible that Dr. Laurie's first case was comparable with this, and that in the three weeks there had been absorption, leaving, however, the thickening of the membranes?

Dr. H. Laurie considered that a condition of opaque yellowish-white, tough membranes must have been the result of a process of much longer standing. In a recent case there would be found lymph flakes which were definitely stated to be absent in this case.

Drs. Joske and Cuscaden also spoke.

REPORTS OF OTHER SOCIETIES.

Medical Society of Victoria.

The usual monthly meeting was held in the hall of the Society on Wednesday, November 1st; the President (Dr. A. J. Wood) in the chair.

Dr. D. M. Morton showed a case of cleft palate successfully operated on by Brophy's method. The operation was performed when the child was 14 days old.

Dr. J. E. Nihill showed a youth, aged 20, with chronic interstitial nephritis. The arterial tension was persistently above 200 m.m. The apex beat of the heart was displaced downwards and outwards, and was diffuse and strong. The radial arteries were thickened. He had slight neuro-retinitis, and some months ago had an attack of right-sided hemiplegia, from which there had been good recovery. There was no discoverable cause.

Dr. W. K. Hughes showed an infant with complete webbing of all fingers and toes. There was also marked shortening of the fronto-occipital diameter of the head.

Dr. D. M. Officer showed a boy, aged 12, with aortic regurgitation, the result of an attack of acute rheumatism three months previously. All the classical signs and symptoms were present, and the apex beat was four inches from the mid line.

The postponed discussion on Dr. C. Lloyd's paper on the "Bacteriology of Puerperal Infection" was opened by Dr. Felix Meyer. He considered the method of obtaining the smear, as described by Dr. Lloyd, inadequate, as it was liable to contamination in bringing the curette through the cervical canal. He described a method in which the canal was protected by a glass tube. Even with a knowledge of the infective agent there were practical limitations. There was considerable difference of opinion as regards surgical interference. One school considered that active treatment was contraindicated in streptococcic invasion; but a pure invasion was rare. He had tried Marmorek's serum when it was first introduced without getting good results. Then there was the question of ante-partum douches. These were now considered unnecessary. In his opinion the absence of a culture need not negative an invasion. The examination of smears and cultures should be supplemented by blood examination.

Dr Ostermeyer considered that the converse of Dr. Meyer's statement was also true, viz., it was possible to get a positive culture without there being any general infection. He quoted a case of his in which on the fourteenth day phlegmasia dolens had appeared in one leg, with retention of urine and the onset of a thick lochial discharge. The temperature was 99·5° F., and the pulse was normal. On examination the discharge was found to contain virulent septic organisms. The condition cleared up without even douching. Exactly the same sequence of events occurred three weeks later, the other leg being affected.

Drs. McArthur, Hooper and the President also discussed the paper, and Dr. Lloyd, in the course of his reply, said that if we believe that infection is almost always from without, it was certainly rational that if the curette is to be used it should be used early, on the first rise of temperature.

Dr. McArthur read notes on "Clinical Observations on the Puerperium." As regarded the theory of autogenesis, he thought that in most cases there must have been some indirect infection from already infected tubes, cervix or vagina. These indirect causes were, however, so rare that there was danger in emphasising them. Examinations of the results of curettage often gave valuable indications. In the case of infection with the bacillus coli communis there was offensive pus; staphylococci, thicker pus with no odour; bacillus capsulatus aerogenes, sulphuretted hydrogen gas was present, and with streptococci, the lochia were limited, but not suppressed, and there was no odour. He had seen various symptoms which he could only ascribe to toxæmia, *e.g.*, urticaria, synovitis and erythema very similar to the erythema nodosum of rheumatism. Puerperal brachycardia was, in his opinion, a symptom of either atonic dyspepsia or albuminuria.

Dr. Cowan considered there was a physiological brachycardia of the puerperium. A pulse of 40 to 42 in a normal puerperium he considered a good sign, and had never considered it other than physiological.

Royal Alexandra Hospital for Children

The 14th clinical afternoon was held at Valentine-lane, Sydney, on Friday, October 21st; Dr. Binney presided.

Dr. Littlejohn showed a baby, aged 4 months, suffering from syphilitic epiphisitis; also a baby, aged 3 months, with an angular curvature of the spine and a cold abscess over the right upper thigh. He said it was very rare to get a lesion of this nature in so young a child.

Dr. Vernon showed for Dr. Jenkins a girl, aged 4 years, who was convalescent after symmetrical gangrene. The child had lost two fingers, and there was a condition of withered necrosis involving several other finger-tips.

Dr. Lethbridge exhibited a boy, aged 10 years, suffering from syphilis of the bones. There were nodes on both upper and lower limbs, and also the remains of an intestinal keratitis.

Dr. Litchfield exhibited a child, aged 6 months, who had a marked asymmetry of the skull. The baby was quite healthy and of normal intelligence. There was some difference of opinion as to whether this condition was acquired or congenital; there was, however, a clear history of the child having lain both night and day on the left arm of the mother, and the deformity looked as though it might have been produced in this way.

Sydney and Suburban Provident Medical Association

The annual meeting of the above Association was held at 121 Bathurst-street, Sydney, on October 31st; Dr. Ralph Worrall, the president, being in the chair. A fair number of the consulting and active staffs attended.

The Hon. Secretary read his report on the working of the Association during the year, which showed that the number of members had been more than maintained and that scarcely a complaint of any kind had been brought before the committee during the 12 months.

The Hon. Treasurer read his statement respecting the financial position of the Association, which showed that the active staff had been paid £2546 13s 8d and the chemists £1164 5s 4d, the corresponding figures for the preceding year being respectively £2468 17s 5d and £1124 7s.

The election of office-bearers for the ensuing year, 1905-1906, resulted as follows:—Dr. Worrall was unanimously re-elected president; Dr. E. H. Binney, hon. treasurer; Dr. A. Acland O'Hara, hon. secretary; Drs. Hankins, Rennie, H. Russell Nolan, representatives of the consulting staff on the general committee, which consists of Drs. Worrall, Binney, O'Hara, Ludowici, J. M. Gill, D. Luker, Corlette, W. H. Read, G. E. Rennie, Menzies, Hankins, R. H. Nolan, M. O'Gorman Hughes, W. H. Crago, MacMaster, A. E. Perkins, A. A. Palmer, Jno. Harris, and E. W. Fairfax.

The meeting then discussed various matters respecting the working of the Association, with the result that the existing methods were confirmed.

Linnean Society of New South Wales.—At a meeting of the above society held in the Linnean Hall last month the president announced that the council was prepared to receive applications for two Linnean Macleay Fellowships from qualified candidates. Several communications were made on Lorantha, and Mr. Maiden, director of the Sydney Botanical Gardens, exhibited a series of specimens illustrative of the Loranths of the county of Cumberland. He pointed out that the host-plants were very numerous, and he suggested the advisability of some co-operative effort on the part of observers and collectors to reduce the records to order and tabulate the results.

REVIEW OF CURRENT MEDICAL LITERATURE.

OBSTETRICS AND GYNÆCOLOGY.

Repair of the Genital Tract following Labour.

Hammond (*American Medicine*, September 9th, 1905), says: "It is incumbent upon the attending physician, upon the termination of labour, to make a careful examination of the genital tract by inspection, and with a good light, combining digital examination when necessary." The diagnosis of injuries to the vulva and perineum is readily made by inspection, but the recognition of injuries to the pelvic floor, cervix and vault of the vagina requires especial care in exposing the deeper structures. The patient should be placed upon her back or side, at the edge of the bed, or on a table. The extent and importance of lacerations of the pelvic floor must be estimated by the presence or absence of injuries to the deep fascia and to the sphincter ani muscle. Too frequently lacerations of the posterior segment of the pelvic floor only are sought for. The anterior segment should also be routinely examined as to depth and extent of lacerations; for if the lacerations extending through the fascia are allowed to go unrepaired, as so frequently occurs, there will be a resulting cystocele, which until recently has proved so rebellious to operative cure. Not infrequently following forceps delivery there will be found one or more transverse lacerations of the anterior fornix of the vagina, extending through the fascia, which if not repaired will permit the anterior wall of the vagina to prolapse with its consequent train of symptoms. The time for the repair of these injuries may be divided into three periods: (1) The immediate, as soon as labour is completed, or within 12 hours thereof; (2) the intermediate, 5 to 10 days after confinement; (3) the secondary, which is at any time subsequent to the puerperium. The author is sceptical of the value of the 5 to 10 days period, and thinks that if primary healing is not satisfactory the results of secondary operation are so good that there is no justification for breaking into a woman's early convalescence by subjecting her to an operation on the fifth day. He prefers the immediate repair, whatever may be the degree or extent of the lacerations. *Tears of the cervix* mostly heal spontaneously, when not infected, and unless there is much hæmorrhage, may be ignored. *Lacerations in the vaginal vault* may be repaired (by those trained in operative work) by the sense of touch, with the use of Kelly's needle. Slight lacerations in the *anterior segment of the pelvic floor* need no interference, but if of considerable extent and the fascia of the pelvis be torn, primary closure of such injuries gives satisfactory results. *In the posterior segment of the pelvic floor:* If the tear be considerable, and the condition of the patient bad, the operator may wisely delay repair for 12 hours. The most important sutures in closing lacerations of the pelvic floor are those that coaptate the torn levator ani and transversus perinei muscles. In the introduction of sutures in the pelvic floor the so-called "inside" sutures begin above, toward the cervix, and work outward, toward the vaginal outlet; in repairing the perineum, the so-called "outside" sutures begin nearest the anus, and proceed up to the point where the posterior vaginal wall begins. No. 1 chromicised catgut is the best suture material. Dusting powders are not necessary. The after treatment consists in strict regard to surgical cleanliness. The bowels should be moved at the end of 48 hours.

Two discussions of great interest to the gynæcologist and obstetrician took place at the annual meeting of the British Medical Association at Leicester, which are reported in the *British Medical Journal* for September 23rd, 1905. The first, on "The Diagnosis and Treatment of Cancer of the Uterus," was introduced in an able paper by Professor Wertheim, of Vienna. Since 1898 Professor Wertheim has operated in over 270 cases of cancer of the uterus by a combined vaginal and abdominal operation, removing the parametrium as widely as possible, and also removing the lymphatic glands along the iliac vessels. The vaginal portion of the operation consists in thoroughly curetting away and cauterising all infected tissue and practising the most thorough disinfection possible. The abdominal portion of the operation consists in dissecting out the ureters, separating the uterus from the bladder in front and from the rectum behind, and dividing the vagina *below* a clamp placed on its upper part. As much as possible of the parametrium is removed on either side. The peritoneum is closed over a packing of iodoform gauze, which is brought out through the vagina. The paper is fully illustrated, showing the steps of the operation. Since practising this very thorough removal, the after results have been much more satisfactory than where vaginal hysterectomy was performed. From 60 to 70 per cent. of the cases operated upon remained free from recurrence after four to five years' observation. Professor Howard Kelly was one of the speakers, and outlined the operation as performed at the Johns Hopkins Hospital. He thought their attention should be directed to early diagnosis and the dissemination of the knowledge touching the early symptoms of cancer, so that women would apply at once when they note an atypical bleeding or discharge. The second discussion, viz., on "The Treatment of Albuminuria and Eclampsia occurring in Pregnancy," was introduced by Dr. Robt. Boxall. Though the occurrence of eclampsia and the presence of albumen in the urine are intimately associated, it by no means necessarily follows that either bears a causal relation to the other. The precise cause of the eclamptic fit is equally obscure, but is now generally regarded as in the main dependent on toxins produced by faulty metabolic changes and deficient elimination by kidneys and liver. Boxall draws attention to several points on which most authorities are agreed, and has prepared a table showing the death rate (per 100,000 births) from puerperal convulsions in England and Wales, Scotland, Ireland, and London for each year, 1881-1903 inclusive. From this it appears that the death rate from puerperal convulsions is, on the whole, somewhat higher in Scotland than in England and Wales, and in both more than double that of London, while Ireland holds an intermediate position. While the death rate in England and Wales and in London has remained fairly stationary, there has been a considerable tendency to increase of recent years both in the case of Scotland and of Ireland. The plan of treatment advocated by Boxall is dieting, purgatives, enemata of normal saline solution; drugs, such as chloral and bromide or morphia, hypodermically, to control the fits, and if the fits continued to empty the uterus. Pilocarpin fortunately received no place in the treatment.

Chorionepithelioma.

Lockhart (The *Montreal Medical Journal*, September, 1905) contributes an exhaustive article on the above, with a table of 277 cases which have been published since 1900. The author first alludes to the old teaching as to the ovum "resting upon the mucous membrane of the uterus, which grew up around it and fixed it to the uterus," which we now know to be wrong, as the placenta is formed by the trophoblastic cells of the embryo penetrating into the maternal tissues, and so preparing the way for the villi to follow. These cells, the synctium and Langhan's cells, are to be found in all uteri between the first and tenth week of pregnancy, and may even be discovered in puerperal uteri. They usually disappear, but at times persist and form a new growth—the "deciduoma malignum" of Sänger, or as it is now universally called, "Chorionepithelioma." Chorionepithelioma is an extremely malignant growth, arising in connection either with pregnancy or teratomata, and characterised, clinically, by its appearance during the pregnant state, by its very rapid growth, by intractable hæmorrhage, and by visceral metastases, which are propagated by the blood vessels; and, histologically, by peculiar cellular elements which differ in themselves from those of any other tumour formation. The disease has only been recognised during the last 12 or 14 years, cases before that time being diagnosed as carcinoma of the uterus.

The author deals with the subject *historically*, and with its *pathological anatomy*, its *histology*, its *clinical process*, its *etiology*, and also with its *diagnosis* and *treatment*, and reports a case that had occurred in his own practice, illustrated with micro-photographs of the villous processes and synctium. *Hydatid moles* play a prominent part in the etiology. In the series of 277 cases collected in the table 36·78 per cent. followed moles, 31·80 per cent. followed abortions, and 26·43 per cent. full time labours. Hæmorrhage—continuous and difficult to check—is the most prominent symptom, and the diagnosis is made by examining microscopically scrapings from the uterus or growth. "Where you have severe and obstinate hæmorrhage in a puerperal woman, and find evidences of any abnormal growth in the vagina, or a soft, villous mass in the uterus, you may rest assured that you have to deal with a case of chorionepithelioma, and the examination under the microscope of a small fragment will decide the diagnosis." The treatment may be preventive, as in curetting away any retained placenta, etc.; palliative, where the growth cannot be removed; and curative. Where there is any chance of curing the patient, early and radical operative measures are absolutely necessary. If the primary growth is in the vagina or labia, complete excision should be attempted. Where the uterus is affected, total hysterectomy is indicated. (Drs. Worrall and Windeyer reported a case of deciduoma malignum in the *A. M. Gazette* for October, 1904.)

Mortality in Operations upon Fibroid Tumours of the Uterus.

J. M. Baldy, of Philadelphia (*The American Journal of Obstetrics*, October, 1905), publishes his mortality for the years 1896 to March 1st, 1905. During that period he has operated on 250 cases of uterine fibroids with a total mortality of 21, or 8·4 per cent. The table comprises 219 supravaginal hysterectomies, with a mortality of 9·21 per cent.; 11 abdominal myomectomies, with no death; 14 pan-hysterectomies, with a mortality of 7·14 per cent.; 3 cases of vaginal hysterectomy and 3 cases of vaginal myomectomy, with no death rate. The last 105 operations gave 3 deaths, or a mortality of 2·85 per cent.

A Critical Review of Operations for Ventro-suspension of the Uterus.

May (*The Canada Lancet*, September, 1905) contributes the above. He quotes Coe as to the causation of displacements as follows:—"Aside from neoplasms, the principal cause of departure from the normal position of the uterus, as well as for the distressing symptoms which accompany this change of position, is not overweighting of the uterus nor in relaxation of its ligaments, nor in weakening of its pelvic supports, but is rather due to atony of the general abdominal and pelvic musculature." The uterus, like all other organs of the body, is held in suspension by ligaments, not supported by anything placed beneath it. The opinions of the authors of several text-books on gynæcology are quoted, which show that nearly all of them name Alexander's operation and ventro-suspension as the two principal operations for retro-displacements of the uterus. As to the choice of operation, May comes to the following conclusions:—That the conscientious, resourceful operator will be bound by no rule, but will aim to suit the operation to the particular case in hand. If for any reason the posterior *cul-de-sac* has been opened, an attempt should be made to correct a retro-displacement by one of the methods which fix the cervix well back in the hollow of the sarcoma—Pryor's, for example. That Alexander's operation should be the operation of choice in all *uncomplicated* cases. That complications are the rule; consequently this method is very limited in its field of usefulness. That uncomplicated cases are those in which any operation is least indicated. That all methods of shortening the round ligaments by doubling them up from within the peritoneal cavity, utilise the strong portion of the ligament, leaving on duty the weak, stretched portion within the abdominal wall to stretch again in course of time. That ventral suspension—not fixation—when properly performed in combination with other procedures does relieve the malposition, and prevents, more surely than any other method, a recurrence of the same. Its dangers are small, if any, in subsequent pregnancy and delivery. It has the advantage of being quickly and easily performed, and is applicable in all cases where any other method is, and in very many cases it is the only method that offers a reasonable hope of permanent cure. That those who criticise most severely the two time-honoured operations—Alexander's and ventro-suspension—are those who have some pet operation of their own, or a modification of someone else's, to extol.

OPHTHALMOLOGY.

Tuberculous Affections of the Eye.

That these occur more generally than textbooks would lead us to infer is shown by abstracts of no less than 17 papers on tuberculous lesions, by different writers, given in the *Ophthalmoscope* for June last. (1) Knapp relates a case of localised tuberculosis of the head of the optic nerve, confirmed by microscopic examination, and the finding of tubercle bacilli in the growth. The eye of the patient, a negro child of two years of age, was excised, on the supposition that it contained a glioma. A solid white tumour 0·6 c.m. broad, was found at the apex of the totally detached retina. Knapp concludes that the lesion began in the retina. Later the child developed other manifestations of the disease, in the shape of swellings of both elbow-joints, cough and hectic fever. (2) Spalding gives two cases, one of tuberculosis of the head of the optic nerve, the other at the equator. The first patient, a boy of eight, without tuberculous antecedents, was seized soon after an accident with an illness marked by headache, raised temperature, accelerated pulse, retraction of head and unconsciousness. After 10 days one eye became inflamed and blind, and showed a yellow reflex.

Several weeks later an intra-ocular tumour was diagnosed, and the eye excised. The consequence was "that every symptom disappeared as if by magic, and by the time the patient recovered from the ether narcosis he was practically cured." A yellowish tumour (subsequently shown to be a tuberculous growth with tubercle bacilli) was found to arise from the optic papilla, to fill one-third of the vitreous chamber and to detach the retina. Spalding's second patient was a child of seven who had lost the sight of one eye from an attack of "infantile ophthalmia" two weeks before Spalding saw him. The blind eye was abnormally large, and showed, besides a total leucoma, tenderness with normal tension. As the other eye began to show signs of sympathetic irritation, the blind eye was excised. "The result of the operation has been a constant improvement in the appearance of the boy, who, from a pale-faced weakling creature, has, in a single month, become lively and ruddy." A tuberculous nodule, the size of a pea, was found in the nasal side of the eyeball, originating from the choroid. Tubercle bacilli were found in the growth. (3) Jessop describes two cases of tuberculous choroiditis. The first, a tubercular girl of 9, had had a smooth non-fluctuating swelling of the sclera in the lower outer side of one eye. It measured 10 m.m. by 12 m.m. by 17 m.m. There were also two retinal detachments below the optic disc, not connected with the scleral swelling. The external swelling was removed. It had thick walls and contained caseating yellow pus. No tubercle bacilli or giant cells were found in the walls of the abscess, but a guinea pig inoculated with the caseous material died from tuberculosis. The choroidal changes are gradually clearing up, while little remains of the scleral abscess. His second patient, a female aged 23, had suffered from a suppurating mammary cyst, in which tubercle bacilli were found, four years before she came under Jessop's care. There was a marked family history of phthisis. Jessop found a yellowish-white swelling lying beneath the retinal vessels, just above the optic disc of one eye. It had soft looking edges and was raised + 2 D.V. = 6/18. No absolute scotoma corresponding to the lesion. The case was kept under observation for upwards of three years, and the swelling was in due course replaced by an insignificant thickening of the retina. (4) Paton had a case of a white translucent swelling obscuring the optic disc which he supposed to be tuberculous choroiditis. The patient had enlarged cervical glands. Pathological examination of the eye by Parsons led to inconclusive results. (5) Polignani excised a small tumour springing from the upper tarsal conjunctiva from the eye of a woman aged 41. Upon microscopic examination the growth was found to be a typical granuloma with epithelioid and giant cells. (6) Hale White, in a clinical lecture, emphasises the diagnostic importance of tubercle of the choroid in cases of general miliary tuberculosis. "More than once," he says, "I have been able to settle a doubtful diagnosis definitely by examining the eyes and finding tubercles"—in the choroid. (7) Polignani describes a case of undoubted primary tuberculous dacryoadenitis, where histological examination of the excised gland left no doubt as to the tuberculous nature of the lesion. (8) Terson *père* publishes a case to show that simple excision of a tubercle of the iris may result in a cure. The patient was aged 12. The nature of the neoplasm was proved by histological examination and also by the inoculation of rabbits and guineapigs. The patient is now 26 years of age, her general health is good, and there are no signs of tuberculosis. (9) Dupey Dutemps describes a case of choroidal tuberculosis, complicated with secondary glaucoma. (10) Maisonnier reports a case of tuberculous irido-cyclitis in a boy of 11, where the diagnosis was confirmed pathologically. Eighteen months after the diseased eye had been removed the patient developed Pott's disease. (11) Manthus removed from the sclera of a young woman a yellowish red irregular mass which had been regarded as a gumma until mercurial treatment was found ineffective. Two months later there was a partial recurrence, which was treated by excision, and application of the thermo-cautery, which led to cicatrisation and apparent cure. Inoculation of animals with pieces of tissue removed from the eye gave positive results, and tubercle bacilli were demonstrated in the lesions thus produced. (12) Lunn's case, one of a typical disseminated tuberculosis, developed double optic neuritis, and in one eye a choroidal tubercle. (13) Smyth's patient, a delicate boy of 4½ years, had a number of prominent granulations on the outer third of the conjunctiva of one lower lid, and a nodule on the tarsal surface of the upper lid. The corresponding pre-auricular gland was much swollen. After excision and scraping the growths were examined and showed giant cells and tubercle bacilli. (14) Chevallereau and Chaillons describe a case of the sarcomatous form of conjunctival tuberculosis in a policeman aged 40. The lids were greatly thickened, and the ocular conjunctiva had a lardaceous appearance, and formed a prominent fold encircling the limbus. The semilunar fold, equally hypertrophied, formed a roll 4 to 5 m.m. in thickness. The diseased material when examined histologically showed a diffuse cellular infiltration, but there was no evidence of tubercle, but on inoculating a guineapig local lesions were produced containing tubercle bacilli, and a rabbit inoculated in the anterior chamber of the eye, developed hypopyon and tuberculous nodules in the iris. (15) A man, aged 26, consulted Pooley on account of absolute glaucoma of one eye of one year's duration. After removal there was a thickening of the sclera and underlying choroid, and in these tubercle bacilli were demonstrated. (16) Posey relates two cases of intra-ocular tuberculosis, one, a child of 6, with spots of infiltration in the cornea and a nodule in the iris the size of a pea, which after excision of the eye was shown to contain tubercle bacilli, and a rabbit inoculated in the anterior chamber with exudation from the diseased eye showed, 39 days later, miliary tubercle of the iris, confirmed bacteriologically. His second case, a man aged 30, had small yellowish nodules scattered throughout the substantia propria of the cornea, and a scleral nodule between the insertion of the external and superior rectus muscles. At first the process was considered gummatous, and anti-syphilitic treatment was carried out, with the result that the symptoms of active inflammation subsided. However, cataract formed and tension kept high, so that after the inflammation had lasted for about two years the eyeball was excised. Miliary tubercle of the iris and solitary tubercle of the choroid were demonstrated, but tubercle bacilli could not be found despite careful search. (17) Hancock gives an excellent account of a case believed to be tubercle of the retina. The patient, a healthy-looking man of 19, denied syphilis and gave a good family history. He had an ill-defined yellowish white quadrangular area in the temporal side of the disc in the macular region with a few small outlying spots. The eye was enucleated. Microscopic examination gave a positive result, and no tubercle bacilli could be found. The eyeball had been hardened in fermol.

NEUROLOGY AND PSYCHIATRY.

Plasma Cells in General Paralysis.

D. De Buck (*Journal de Neurologie*, March, 1905). The author insists on the interest and significance of plasma cells in general histopathology, especially in relation to chronic inflammation and the repair and cicatrisation of tissues. The object of this monograph is to emphasise the importance of plasma cells, the opinions held by different authors as to their origin, and the author's own conclusions. He points out that the brain is an extremely favourable spot for the study of the inflammatory reaction of mesodermic tissue, as the blood vessels are the only tissues here of mesodermic origin.

The term " plasma cell " was first used by Waldeyer to denote fibroblasts, atypical, because of their richness in cytoplasm—the mast cells being included in this group. Unna pointed out the intense reaction of the protoplasm to basic stains, and v. Marschalko the morphological characters of a strongly chromatic nucleus eccentrically placed on oval cell body with basophile granular cytoplasm aggregated at one extremity and a clear perinuclear space. Unna regarded them as being of connective tissue origin; Marschalko as of lymphocytic origin. Many authors, notably Maximow, have supported the leucocytic theory of origin, recognising a group of polyblasts, which includes lymphocytes, plasma cells, clasmatocytes of Ranvier, and mast cells, all derived from the same cell-stock, the lymphocytes. Some authors admit a mixed origin, claiming to prove a lymphocytic origin, but admitting the possibility of a connective tissue origin as well. Others expound an exclusive fibroblastic origin, especially Pappenheim and Weber. The former claims that all polyblasts are fibroblastic in origin and represent different phases in development of the one type of cell. The plasma cells are claimed to be the pathological equivalents of leucocytes, resembling them in form and staining reaction, but being of fibroblastic origin. The multinucleated cells in granulation tissue are regarded as the only ones derived from blood elements. Others state that these fibroblastic cells in becoming leucocytoid develop mobility, while others, Colassa and Sepp, deny that the true leucocytes, in spite of contractile protoplasm, have any normal vital function of diapedesis. Querton supports the leucocytic theory mainly on the fact that, after intravascular injection of carmine, he found in regenerating tissue elements charged with granules of carmine undergoing development into fibroblasts, but this is explained by the fact that the fibroblast takes on the characters and properties of leucocytes, and there is no evidence to prove that it is not phagocytic. This is the state of opinion on the origin of plasma cells. Vogt and others consider them to be pathognomonic of general paralysis.

The majority of observers of the processes of general paralysis defend the diapedetic nature of this infiltration and admit the lymphocytic origin of the cells forming it. Weber and the author, however, strongly deny both these views. Weber points out that the vascular wall actively participates in the inflammatory processes. He states that the connective tissue around the smaller blood vessels is actively proliferating, that the greater part of the nuclei lying in the perivascular spaces are of connective tissue origin. There is a great extension of the vascular wall, the whole of the perivascular space being sometimes filled with separate lamellæ with nuclei lying between, all derived from the connective tissue elements of the vascular wall itself. Rarely does one meet here cells of undoubted lymphocytic origin. A great number of these nuclei of granulation tissue correspond to the plasma cells of Marschalko, the presence of which in general paralysis has been recently noted again by Nissl. They must be regarded as a sign of intense inflammatory processes, capable of altering the structure of the vascular wall itself, and from this point of view they can be regarded as a diagnostic characteristic of general paralysis. Weber will not admit the mobility of plasma cells, ascribing their presence free in nervous tissue, as recorded by other authors, to misinterpretation.

The author had previously, after studying ten cases, rejected the views of Weber, but after more extended research in eighteen cases, he supports them strongly, asserting also that these fibroblastic elements possess mobility. From the cell contents of the capillary walls, from the appearances of the walls themselves, and the perivascular spaces, he regards the plasma cells as taking origin from the walls of the vessels. Their appearance in the lumen of the capillaries is quite secondary. These changes are seen in the cortex, the white matter even, and the subcortical ganglia, and one finds different phases of development from normal endothelial cells, to young fibroblasts, up to the mature plasma cells of Marschalko. As no mitoses have ever been observed, the conclusion is that these elements multiply by direct division. The migratory elements are all fibroblastic, and no evidence whatever of diapedesis of leucocytes exists. Some capillaries are quite occluded by masses of young fibroblasts and plasma cells; in others, and more particularly those of larger calibre, a perivascular fibroblastic coat is formed mainly at the expense of the adventitious cells. These elements are believed not to always remain heaped up at the place of formation, being capable of invading the surrounding nervous tissue.

What part is played by the plasma cells whose fibroblastic origin seems to be so incontestable ? Their function is probably multiple. No evidence exists of phagocytosis. They are probably secretory—fermentative. They perhaps participate in the formation of anti-bodies. They also probably take part in the sclerosis, which is primarily vascular in general paralysis. In fact, the pathological processes of general paralysis, instead of being those of diapedesis of blood elements, are really due to fibroblastic mesenchymatous changes, an interstitial formation comparable to a rapid arterio-sclerosis. Probably this disease occupies quite a special place in the pathological anatomy of mental diseases, in this sense, that being related to senile arterio-sclerosis, it depends on an interstitial process, the nervous and neuroglial processes being secondary, whereas all other mental diseases are parenchymatous encephalopathies. This view lends strong support to the fundamental vascular origin of general paralysis, and explains, better than any other, the progress and prognosis, the epileptic and apoplectic accidents of the disease.

With regard to the etiological relation of syphilis, in view of the statement that the syphilotoxines and parasyphilotoxines affect the mesenchyme producing granular and sclerotic lesions, the granulo-sclerotic changes in general paralysis, mainly attributable to parasyphilotoxines, is not surprising. The soft meninges—as peripheral expansions of the cortical mesenchyme—are constantly affected in general paralysis, but not in other mental diseases. Probably the cellular elements in the cerebro-spinal fluid in these cases are equally leucocytoid elements of fibroblastic origin.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Union for the Abolition of Vivisection—The University of Sheffield—The Doyen Serum for Cancer—The Royal College of Surgeons of England—Birthday Honours—Imperial Cancer Research Fund—The League of Mercy—Physical Education—St. Thomas's Medical School.

THE annual meeting of the British Union for the Abolition of Vivisection was recently held at Caxton Hall, Westminster. The chair was occupied by the Hon. Ernest Pomeroy, and the yearly report was taken as read. The pith of the meeting was contained in the following resolution moved by the Rev. F. B. Meyer and agreed to by the audience:—"That this meeting condemns the practice of vivisection, and calls for its prohibition by law on the following grounds: (1) That it is opposed to morality, being inseparable from cruelty; (2) that it is opposed to true science, being uncertain in its results; (3) that the dangerous growth of the revolting system of serum-therapy, the enormous yearly increase in the number of experiments, and the strong bias evinced by Government inspectors are evidences of the futility of restriction and the necessity for drastic measures in dealing with a growing evil." Except as evidence of the length to which blind and fanatic zeal may lead men otherwise well informed, these resolutions are too puerile to merit attention; but when a clergyman talks of serum-therapy as a "revolting system" of treatment and prates of licensed vivisection as being "opposed to morality," "inseparable from cruelty," and "opposed to true science," it is time to protest against wholesale denunciation which is not only untrue, and therefore misleading, but is also offensive. Any importance such a resolution may serve to possess is derived from the fact that it is stated boldly and without qualification by a man whose education and profession are, in the public eye, an apparent justification for the belief that he knows something about the subject of which he speaks, and that at least he will make sure that any statements he utters are true and verifiable. Fortunately for the cause of science and the credit of this country the Anti-vivisection Union is a feeble and almost moribund association whose energy flickers into some semblance of true vitality with each recurring annual meeting, but whose lease of life is in the hands of a decreasing band of faddists and extremists who have persuaded themselves, without taking any trouble to verify their references, into a shaky belief in the tenets of an unsound and ridiculous creed. There are but few who take Mr. Stephen Coleridge and his followers seriously, but even these few would do well to reconsider their position in the light of such an uncompromising and unwarrantable resolution as that which found favour at the last meeting of their society.

The University of Sheffield—the youngest of our provincial seats of learning—was inaugurated by their Majesties on Wednesday, July 12th. It received its Royal Charter only two months ago, and like similar universities of recent birth—such as those of Birmingham and Manchester—it has gradually developed through smaller institutions first gathered together as a University College and finally emerging into an independent university. The building is of stone and red brick, built in the Tudor style, and forms three sides of a quadrangle, the fourth being left vacant to admit of future extensions. Arriving at the main entrance in Weston Park, the King and Queen were received by the Duke of Norfolk, Chancellor of the University, the pro-Chancellor (Alderman Franklin), and the Vice-Chancellor (Dr. Hicks), and were conducted to the quadrangle. A number of presentations having been made, their Majesties, preceded by the Council and Senate, walked to the dais amid the cheers of the guests. The Sheffield Musical Festival sang the National Anthem and then the "Daughter of Ancient Kings," from Sir Edward Elgar's "Coronation Ode." The Vice-Chancellor read the University address, from which the following sentences are quoted:—"We bear in proud and grateful memory the fact that on more than one previous occasion members of your Royal house have shown an interest in the institutions from which the University of Sheffield derives its origin, and we gladly recall what has been already achieved in the course of your reign to advance that wider movement of which this University is but a sign and symbol. The early years of your Majesties' reign must always be remarkable as having witnessed that more general awakening on the part of your Majesties' subjects to the advantages of higher education in all branches of learning and that better understanding of its needs and requirements which is evidenced by the almost simultaneous creation of five independent Universities at Birmingham, Manchester, Liverpool, Leeds and Sheffield. The distinction conferred upon the inauguration of our University by the gracious presence of your Majesties here to-day is one of the happiest omens for its future, and we can only hope and pray that the teaching given within these buildings, the learning acquired within these walls, and the influences that will flow from them may prove not unworthy of the great honour you have done us, and may be a constant source of profit and of ever-increasing usefulness to all classes of your Majesties' loyal and loving subjects within these districts." A brief statement was next made by the Chancellor, who announced that Mr. William Edgar Allen, a well-known citizen, had that day presented £10,000 to the University funds, with the reservation that it is to be applied to the purposes of the library. This, he said, left only a little over £120,000 to be raised to complete the £200,000 necessary for the buildings and endowment of the new University. The treasurer and chairman of the buildings committee presented the King with a gold key, and his Majesty stepping forward said: "I have pleasure in declaring this beautiful building open, and my fervent hope and desire is for the long-continued prosperity of the University of Sheffield." A fanfare of trumpets and the singing of "O Gladsome Light" by the Festival Choir marked the close of a ceremony as interesting as it was important.

A meeting of the French Chirurgical Society was held in Paris on July 13th to hear the report of the Commission appointed to inquire into the validity of the claims set forth by Dr. Doyen to have his method of cure for cancer accepted as specific. From the earliest intimation of M. Doyen's alleged "cure" doubts were expressed concerning its worth. The statements set forth concerning it were, to many minds, so loose and so lacking the confirmation of true scientific accuracy that M. Doyen's methods were regarded with suspicion, and his results were accepted with a mild but justifiable incredulity. It was on account of the attitude thus assumed towards his discovery by a large section of his own professional countrymen that M. Doyen requested the Chirurgical Society in December last to appoint a small committee to undertake the duty of examining and carefully watching the progress of a certain number of cases treated by this new method at his clinique. The Society acceded to M. Doyen's wish, and appointed a Commission consisting of M.M. Descardes, Kirmisson, Charles Monod, Nélaton, and Berger. This Commission, which was presided over by M. Berger, was charged not with any investigation of the work of Metchnikoff and others as to the existence of a cancer bacillus, but was only created to determine whether M. Doyen had succeeded, as he affirmed, in overcoming the specific germ—whatever it may be—of the disease; in short, if he was able to substantiate his assertion that he could cure cancer. During several months the Commission carried on a series of extended and careful observations, and the report which it prepared was presented by one of the Commissioners, an eminent surgeon on the staff of the Lausanne Hospital. The question of the treatment of cancer has recently been so much "in the air" that the report on the Doyen cure was awaited with considerable anxiety, and its presentation not unnaturally excited widespread interest, and brought together a large concourse of physicians, surgeons, hospital residents, students, and others interested. The Commissioners state that they have investigated and, during five months, have followed the progress of the disease in 23 patients treated by the Doyen serum. The conclusions at which they have arrived are as follow:—(1) That only one case was produced in which there had been no recurrence of the disease for four and a-half years; (2) that two cases remained stationary; (3) that twenty cases were obviously becoming worse. The report further states that several patients subjected to the same method of treatment in other cliniques have given no better results. In conclusion, the Commissioners express the opinion that "nothing which the Commission has observed justifies the opinion that M. Doyen's treatment exercises any favourable influence on the progress of cancer." This finding was put to the meeting and adopted by the Society without discussion. M. Doyen was present, but not being a member of the Chirurgical Society he was debarred by the rules from speaking. M. Doyen has intimated his intention to appeal against this judgment to the October Session of the Chirurgical Society. It is, however, obvious that his discovery is without merit, and the scepticism which its announcement originally excited is more than justified in the event.

A quarterly meeting of the Council of the Royal College of Surgeons of England was held at the College on July 13th. Mr. Tweedy was re-elected president, and Mr. Henry T. Butlin and Mr. Edmund Owen were elected vice-presidents for the ensuing year. The following professors and lecturers were elected:—Hunterian Professors: Warrington Haward, A. H. Cheatle, H. J. Paterson, and C. G. Seligmann. Arris and Gale Lecturers: J. H. Watson and Sydney W. Curl. Erasmus Wilson Lecturer: James Sherren. It was determined to close the museum during August and September for repairs and re-decoration. A report was received from the Committee of Management of the Conjoint Examining Board in reference to the application of the Cairo Medical School for recognition as a place of study for candidates for the diplomas of the two Royal Colleges. The committee recommended that, subject to certain conditions, candidates who have received the diploma in medicine and surgery of the Egyptain Government, after passing the required examinations and completing the curriculum of professional study at Cairo, extending over four years, should be admitted to the final examination of the conjoint board on the completion of one year of additional study at a recognised medical school in the United Kingdom during which they shall complete the courses required by the regulations of the conjoint board. The conditions provide, among other things, that an official representative of the examining board of the two Royal Colleges be appointed annually to attend, as visitor, the examinations of the Cairo Medical School and Hospital, which are held in December and January, to take a general survey of the examinations, and to note the methods of the examiners and the standard required in each subject. The committee also reported that a communication had been received from the Minister of Education of the Egyptian Government expressing his complete concurrence in the conditions laid down. This report was adopted by the Council, having previously received the approval of the Royal College of Physicians. It was agreed to send an address of congratulation to the Royal College of Surgeons of Edinburgh on the occasion of its fourth centenary celebration.

The names of the following members of the medical profession appear upon the list of honours conferred by the King in celebration of his birthday:—To be Knights: Professor Thomas McCall Anderson, Regius Professor of Medicine in the University of Glasgow; Dr. Thomas Frederick Chavasse, Senior Surgeon of the Birmingham General Hospital; Dr. William Josiah Smyly, President of the Royal College of Physicians of Ireland; Dr. Philip Sydney Jones, Honorary Consulting Physician to Prince Alfred Hospital, and to Sydney Hospital, Australia; Dr. Edmond Sinclair Stevenson, Member of the Medical Council of the Colony of the Cape of Good Hope. To be Knight Commander of the Bath: Surgeon-General Charles McDonagh Cuffe, C.B. To be Companions of the Bath: Surgeon-Major Thomas Egerton Hale, V.C., a survivor of the Crimean War; Surgeon-General William Launcelot Gubbins, M.V.O., Principal Medical Officer of the Western Command in India; Colonel David Bruce, F.R.S., R.A.M.C.; Lieutenant-Colonel William Coates, R.A.M.C. Volunteers.

The third annual meeting of the general committee of the Imperial Cancer Research Fund was held at Marlborough House on July 5th, under the presidency of the Prince of Wales. There was a large and distinguished attendance. Sir William Church, in moving the adoption of the annual report, summarised the results of the scientific investigations and experiments made during the past year. The conclusions arrived at last year, he said, to the effect that cancer was not associated with peculiarities of diet, climate, or mode of life, had been confirmed, but, on the other hand, the importance of the ages at which the disease appeared had acquired greater significance. Experiments had demonstrated the possibility of perpetuating malignant new growths through successive generations of mice in such a way that the cancer cells appeared to be gifted with the power of perpetual multiplication under favourable circumstances. The results thus obtained showed the necessity for more closely studying the processes of cell multiplication, for in this abnormal proliferation and reproduction of cells appeared to lie the clue to the solution of the mystery. This property definitely separated cancer from the known infected diseases. As confirming this, healthy mice when kept for long periods in association with mice suffering from cancer had not acquired the disease. No evidence had been obtained that radium emanations had any selective or special action on tumour tissues, while the amount of radio-active solutions necessary to produce any action of the tissues far exceeded what could safely be introduced into the body. The cellular and experimental work done marked a real progress in their knowledge of the mode of growth in certain forms of malignant disease. The malignancy of cancer appeared to consist in the inherent power the cells possessed of division and multiplication. If they could discover the nature of this apparently unlimited growth they might not unreasonably hope for success in obtaining the means for checking the proliferation, and thus neutralising the malignancy. In reply to a vote of thanks, proposed by Mr. Henry Morris, the Prince of Wales expressed gratification at the record of the year's work. He said that the reports showed evidence of laborious and careful investigation and of sure progress. They covered a wide field of investigation, and no line of inquiry had been overlooked. The search after fresh facts had been stimulated by the rejection during the past three years of certain fallacies which previously obscured the true problem and had now been exposed. The destruction of preconceived ideas of the origin of cancer had cleared the way for a further advance, while the number of hitherto unsuspected facts certainly gave hope of final success. The researches in the various British colonies and protectorates continued to yield information of increasing value. In India, whose races and castes differed so widely in customs, mode of life, and diet, cancer had been shown to be not uncommon. Unfortunately, any value the many reputed remedies sent to the laboratories possessed to those who believed in them had been based upon the application of the term " cancer " to diseases which were not true malignant growths. They had not survived the test of scientific examination. It was a gratifying fact that the work of the Research Fund was being carried out in harmonious conjunction with that of French, American and German scientists. The Prince, in conclusion, assured the Executive Committee of his deep appreciation of the eminent services which were being rendered in the endeavour to solve what still remained one of the greatest problems of human life.

The Prince and Princess of Wales entertained the presidents, vice-presidents, and members of the League of Mercy to a garden party at Marlborough House on July 1st. The state of health of the Princess did not permit her to be present, but from her Royal Highness came a gracious message, which was delivered prior to the party, when the presidents and lady presidents of the districts of London and the Home Counties, to the number of about 100, assembled in the *salon* of the house. To the Prince of Wales, as Grand President, a report of the work of the league last year was presented and read by Mr. J. Harrison, M.V.O., who shares with Lord Wolverton and Sir William J. Collins the duties of the honorary secretaryship. Replying to this, his Royal Highness said: "It gives me great pleasure, as your Grand President, to again express my personal thanks to you and to all those who have worked under you on behalf of the League of Mercy, whose organisation has been considerably extended throughout London and the Home Counties during the past year. I am gratified to learn from the report which has just been read that another successful year has been completed, and that the large sum of £14,000 has been handed over to King Edward's Hospital Fund. This makes a total contribution of £46,000 during the five years that the league has been in existence. This steady increase is indeed most satisfactory, but I am well aware that such results could not have been obtained without personal trouble and sacrifice of time on the part of the members of the league. The Princess desires me to express her regret that she is unable to be present here to-day, and in her name as well as in my own I desire to once more thank you for the splendid work you have done on behalf of the league."

The Egyptian Hall of the Mansion House was filled to its utmost capacity on June 29th, when the Lord Mayor presided at a meeting convened for the purpose of establishing the National League for Physical Education and Improvement. The object of the league is to establish close association and centralisation of all societies and individuals trying to combat such influences as tend to produce national physical deterioration. The Bishop of Ripon moved—" That the causes which tend to impair the health of the nation as disclosed by the report of the Departmental Committee ought to be combated with united action. It is therefore recommended that all the agencies at present engaged in isolated work for that purpose should have the opportunity of combining, and thus cover the whole country." The Bishop reminded the meeting that the question was not raised whether there had been any deterioration of natural powers during a given number of years, but attention was called to the fact that there were conditions at work which were tending to injure the physical strength of the people. Whereas during the last 50 years immense strides had been made towards the improvement of the condition of the people and their dwellings, the percentage of infant mortality had not diminished as might have been expected. The Lord Chief Justice, in seconding the motion, spoke of the noble and magnificent work which had been accomplished for many years past by school and college missions, carried on by disinterested and self-denying men whose names were not known to the newspapers. It had been estimated that there were between 300,000 and 400,000 girls and boys in the metropolis requiring care and attention, some moral and physical training and harmless recreation, but it was estimated also that only one-seventh of them were reached through the present agencies. After nearly 40 years at the Bar, and after a few years' experience on the Bench, he knew that the great cause of crime—second only to drink—was the lack of healthy recreation and innocent amusement among the working classes. Sir William Broadbent moved the second resolution—" That this meeting, assembled at the Mansion House under the presidency of the Lord Mayor of London, therefore heartily approves of the federation designed for this purpose and of the proposed effort to start organisations in those parts of the country where none exist." Mr. Alderman and Sheriff Strong seconded the proposition; and Mrs. Bramwell Booth, in supporting it, declared that nothing could be done until there was throughout the country a pure and a high ideal of motherhood—indeed, it was, in her opinion, a question of good mothers. The meeting closed with a vote of thanks to the Lord Mayor, proposed by Sir James Crichton Browne.

In the new Governors' Hall of St. Thomas's Hospital the Archbishop of Canterbury distributed, on June 27th, the prizes won by the students of the Medical School during the year. The chair was occupied by Mr. Wainwright, the treasurer of the hospital. In the course of his remarks the Archbishop said he was glad to be able to assist in stimulating the medical, surgical, and scientific studies for which St. Thomas's Hospital had been renowned for centuries. A long series of notable people had been connected with it since the time of King John, and its long historic past was well worth remembering. Never had there been a time in English history when so much was expected from members of the medical and surgical professions.

It was a matter for congratulation that every bit of knowledge acquired by them was freely and openly made available for everybody. He reminded the students of the responsibilities for which they were training themselves and of the possibilities which the advance in medical and surgical skill offered to them to benefit the lives of the rich and poor alike. On the motion of Dr. Sharkey, senior physician, seconded by Mr. Ambrose P. Boyson, a vote of thanks was accorded to the Archbishop. A garden party, which was largely attended, was then held on the terrace, where the band of the Irish Guards played a selection of music. The whole of the hospital was also thrown open for the inspection of the visitors.

South Australia.

(FROM OUR OWN CORRESPONDENT.)

Charity Fête at Government House—Dental Board Examinations—Eight Hours' System and Nurses—Accommodation for Infectious Diseases Cases—The Importation of Opium—Cigarette Smoking by Children—Deadlock re the Food and Drug Acts—Abattoirs for Adelaide and Suburbs.

EARLY in the year Lady Le Hunte proposed that a bazaar should be held in aid of the Royal British Nurses' Association, the District Nurses' Association, and the Queen's Maternity Home, and she offered the Government House grounds for this purpose. Nearly all the members of the medical profession in Adelaide were asked to be vice-presidents of the executive which was formed to carry out Lady Le Hunte's project. The idea of the fête met with a good deal of passive opposition on the part of some medical men, for they and others who consented to act as vice-presidents felt quite out of sympathy with two of the institutions which it was proposed to benefit. It was felt by them that as the Royal British Nurses' Association was not a charity, it was not right that the public should be appealed to for funds to support it. Besides this, the last balance-sheet showed a credit of £140. Lastly, there is a good deal of jealousy between the newly-established branch of the Australasian Trained Nurses' Association and the Royal British Nurses' Association. Only those nurses who have been trained in the Adelaide Hospital are eligible as members of the latter body, which has an insignificant membership of 14. Now that the Australasian Trained Nurses' Association has a South Australian branch, which comprises most of the certificated nurses, it is felt by many of the medical men here that the Royal British Nurses' Association does not supply a want and robs the more national and representative association of some of the support it should have. The Queen's Home, too, has encountered a good deal of opposition since its inception. It was founded by Lady Tennyson for the purpose of furnishing a home at which poor respectable married women might be confined. No doubt at first this charity—like most others—was abused. The average fee for confinements in the suburban districts is two guineas. In the early days of the home there can be no question that several of those who were admitted could afford this sum. Consequently it is not surprising that the surburban practitioners are inclined to look askance at schemes in support of the Queen's Home. Nobody denies that the District Trained Nurses' Association merits the support of all, and many would have been glad to have seen it the sole beneficiary of the fête. Last month the undertaking, the biggest thing of the kind ever held in Adelaide, was brought to a successful conclusion. A profit of over £3000 was made, and a cheque of £1000 has been handed to each institution.

The Dental Board has been busy during the last few months in drawing up regulations for the examination of applicants who do not hold diplomas entitling them to registration. No school of dentistry exists here, though it is not improbable that the University will form one in the course of the next few years. It has been arranged that instruction in dental anatomy shall be given in the dissecting room of the University, and the other dental subjects will also be provided for. The regulations for the examination, which is to be held this month, have been drafted by members of the Board, together with representatives of the University of Adelaide. The new Board is determined to raise the status of dentists in South Australia, and it is to be congratulated upon having secured the co-operation of the University Council.

With the return of the Labour party to power at the last general election it is not surprising that an attempt has been made to apply the eight hours' system to the nursing at the Adelaide Hospital, and to increase the rates of pay. Previous to 1903 the nurses were on duty from 6 a.m. to 8 p.m., with three hours off duty daily and two hours intervals for meals, making their working hours nine per day. The rates of pay were—minimum £50 per annum, maximum £66 per annum. In 1903, when the pruning knife was applied to the inflated hospital expenditure, the salaries were reduced and the hours increased as follows:—On duty from 6 a.m. to 8 p.m., two hours off duty daily, three intervals for meals totalling 2¼ hours. Rates of pay—minimum £30 per annum, maximum £42 per annum. The hours off duty were arranged to alternate afternoons and mornings. The nurses are off duty all day every other Sunday, and work all day on the alternate Sunday. They are allowed every other public holiday from 10 a.m. These times apply to the staff nurses. The probationer nurses have the same two hours off duty, with half-hour intervals for meals, and one full day off each month; no public holidays. The rate of pay is—first year £12, second and third years £18 per annum. The Premier (late leader of the Labour party) has declined to lessen the hours or increase the rate of remuneration.

Since the closing of the Adelaide Hospital to the reception of infectious diseases the attention of the Government has been repeatedly drawn to the necessity of providing some means of dealing with the serious cases occurring amongst the destitute poor. Dr. Morris, in his annual report to the Destitute Asylum Board, has insisted on the desirability of some action being taken. It is satisfactory to learn that the Government has given orders that a wing of the old Lunatic Asylum shall be prepared for the reception of destitute patients suffering from infectious diseases.

Both Houses of Parliament in this State have passed a motion affirming that it is desirable that the Federal Government be informed that the Parliament of South Australia approves of the proposal to absolutely prohibit the importation of opium into the Commonwealth, except such preparations of opium as are required for medicinal purposes. An Opium Act Amendment Bill has also been introduced into the Lower House. It is proposed to prohibit the sale of opium except by registered chemists under prescription by a duly qualified and registered medical practitioner.

Tobacco smoking is also engaging the attention of politicians. Last year an Act was passed which prohibited the sale of cigarettes to those persons under the age of 16. This session a bill has been introduced which goes further, and is intended to suppress the habit of smoking cigarettes by those who have not attained to manhood.

In South Australia prior to Federation the Foods and Drugs Acts were administered by local authorities under the Customs Department. When the Commonwealth took over the control of the Customs Department the law has been administered under various Acts. Recent legal decisions have brought all administration to a deadlock, and consequently a new Act to consolidate the laws relating to the sale of food and drugs had become an absolute necessity. This bill was introduced last week. It entrusts the enforcement of the Act to the Central Board of Health. It provides for the administration of the Act by the Central Board by its own officers and at its own cost in country and other places where the necessary expenses would be unduly heavy on the local authorities. It provides for the administration of the legislation by local authorities, thereby giving them every possible power for complete self-protection against the sale of adulterated food and drugs within their various districts. It provides for the execution of the Act by officers of the Central Board on default of the local authority at the cost of the latter. It provides for all analyses being made for the local authorities free of charge, subject only to certain necessary restrictions by the Central Board. It allows inspectors of local authorities to enter and inspect manufactories, to sample the foods and materials used in preparing, and to seize unsound or unwholesome food in order that it may be dealt with by justices. It distinguishes between and makes allowances in its penalties for adulterations that were (*a*) injurious to health, (*b*) a source of fraud, though not injurious, and (*c*) necessary or unavoidable, being neither injurious nor fraudulent. It renders the laws more intelligible and its administration simple, uniform and economical. By providing for the publication of standards and defining what should be considered "injurious to health" it practically does away with the necessity of providing expert medical evidence in court as to what constituted injuriousness to health. As regarded the public, it protects the purchaser not only against adulterated or mixed articles, but also against the delivery of any article which differed in substance, nature or quality from what he demanded. It punishes the seller who abstracts any part of an article so as to affect injuriously its quality and sells the same without due notice. It prevents the sale of articles mixed with ingredients not in accordance with the demands of a purchaser without a label clearly indicating that they were mixed, and stating the nature and amount of the mixture. It enables inspectors of local authorities and police constables to obtain articles and submit them to analysis when directed to do so. It includes provisions for antiseptics, disinfectants, deodorants, narcotics, cosmetics, flavouring matters, condiments, and confectionery, and articles used in the preparation of food and drugs. It compels the trader to label his mixed foods in stock and to allow examination of the apparatus used in preparing and selling. It compels the trader to sell samples for analysis on demand by an inspector. It allows for such elasticity in the standards as might be necessary on account of climate, natural deterioration, and circumstances connected with the manufacture and preservation of food and drugs. It protects the seller by providing for the inspecting and sampling by local authorities of food and drugs in course of transit, thereby protecting the consignee from having adulterated articles forced upon him. It requires every purchaser when he intends to have the article analysed and take proceedings to divide the sample and deliver one part to the seller. It authorises the justices where the result of the analysis was questioned to have the article referred to the Central Board of Health for analysis by an analyst. The sale of milk from diseased cows and of unsound meat is forbidden. The gist of the bill may be summed up thus:—The manufacturer may make what he pleases and the dealer may sell what he pleases so long as the substance is not injurious to health and the purchaser is made aware of the exact composition of the materials he is paying for.

The Adelaide City Council is again considering the question of providing abattoirs for the city and suburbs.

Victoria.

(FROM OUR OWN CORRESPONDENT.)

The Proposed New Medical Curriculum at the Melbourne University—The Diploma of Public Health.

THE October session of the Senate of the University of Melbourne has provided keener debates than have been heard for several years. The notice paper in itself was exceptionally long, but the business was got through with most commendable despatch until the proposed new medical curriculum was under consideration. For months past an organisation committee of the Faculty of Medicine had been occupied in drawing up a revised curriculum. This had been adopted by the Faculty, passed by the Council, and now was before the Senate. Its reception was moved by Professor Allen, the Dean of the Faculty, who explained the main alterations. Instead of there being five examinations at the close of each year of the course, it was proposed to divide the course into four divisions, roughly as follows:—The first division was to end at the close of the first year, the second at the close of two and a-half years, the third at the end of three and a-half years, and the fourth at the end of the fifth year. The first division was to contain the usual scientific subjects: Natural philosophy, chemistry and biology, with, at the end of the year, an extra course in organic chemistry and some preliminary work in histology. The second division was to be devoted exclusively to anatomy and physiology. The third division was to include pathology, bacteriology, therapeutics, dietetics, hygiene and materia medica, with hospital tutorial classes and practice. The fourth division was to include medicine, surgery, obstetrics and gynæcology, and forensic medicine, with hospital practice and instruction in special departments. The length of the working year was also to be increased by some five weeks or so. Instruction was made compulsory in all the special departments—ophthalmology, pediatrics, dermatology, mental diseases, and fevers—but that such instruction might be taken either before or after the final examination. Another important innovation was that all systematic lectures should cease five months before the final examination. Dr. R. R. Stawell moved as an amendment that the whole curriculum be referred to a select committee of the Senate to report at the next session. This was seconded by Mr. G. A. Syme. Drs. Boyd, Moore and others spoke in favour of the amendment, and Drs. Stirling, Bird, Barrett, Springthorpe, Howard, Jamieson, Professor Osborne, etc., against it. This discussion took three sittings of the Senate, and on division the amendment was lost by the narrow margin of two votes —ayes, 28; noes, 30. The main objections raised by those who supported Dr. Stawell were that two and a-half years and one and a-half years were too short intervals to devote to clinical work and anatomy respectively, even though the work were not interrupted, and that those failing in their first examinations in anatomy and physiology would be utterly unable to get the advantage of the tutorial classes at the Melbourne Hospital, which would begin immediately after the examination. On going into committee of the whole Senate to consider the curriculum in detail the two parties were found to be so equal numerically that progress was impossible, and on one clause the warden gave his casting vote in favour of further consideration. The Senate then adjourned to allow the two parties to confer. Professors Allen and Osborne and Drs. Barrett and Springthorpe, representing the organisation committee, and Drs. Stawell, Moore, Syme and Boyd, representing the objectors, met and agreed to a modification of the curriculum, which was submitted to the Senate and passed. The course, as now modified, is divided into three chief divisions, marked off by three examinations at the end of each of the first, third and fifth years. The first division is practically unchanged. The examinations in anatomy and physiology come at the end of the third year instead of in the middle, and clinical work begins at the beginning of the third year. This is the main point in which the modified curriculum fails to carry out the ideas of the organisation committee. The difficulty was to meet the wishes of those members of the hospital staff who desired the clinical work to extend over three years and those who desired the anatomy to extend over two years without adding another year to the course. The opinion was almost unanimous that no course short of a six years one could be perfect; but this was felt to be outside the range of practical politics until other universities could see their way to extend the course also. Clinical work in the third year can never be done to advantage while the students have the huge examinations in anatomy and physiology looming large before them. It is a matter of reasonable doubt as to which is the better—two and a-half years' uninterrupted work or three years of which the first is so handicapped. In addition to the three main examinations provided for, there are subsidiary ones between these, in the passing of which more latitude in point of time is allowed. Space, however, will not permit of more detail being given here. The old curriculum, which dated from 1888, certainly required amendment, and there can be no doubt but that considerable improvement has been effected.

The Senate also adopted the regulations for the diploma of public health submitted by the Faculty of Medicine. It is expected the first examination for the new diploma will be held in December of next year.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics, Eucalyptus Globulus, Thymus Vulg., Pinus Sylvestris, Mentha Arv. with Benzoborate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic, prophylactic, reducing sensibility of mucous membrane. W. A. DIXON, F.I.C., F.C.S., Public Analyst of Sydney, after a comparative test of "Eumenthol Jujubes" and beechwood Creasote, reports that there is little difference in their bactericidal action. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creasote." G. HUDSON, Manufacturing Chemist, Ipswich, Queensland. London Agent: W. F. PASMORE, Chemist, 320 Regent street, W.—[ADVT.]

Report on the Dengue Epidemic in Brisbane in 1905.

AT the meeting of the Queensland Branch of the British Medical Association held on April 7th a committee, consisting of the President (Dr. Robertson), and Drs. Thomson, Love, Turner and Wield, were appointed to draw up a report on the epidemic of dengue fever, and the following is the result of their labours:—

Dengue appears to be endemic in the eastern tropics. In the summer of 1897-8 an epidemic of the disease occurred throughout the coastal districts of Queensland, and in Brisbane attacked a very large proportion of the population. In the summer of 1905 Brisbane has suffered from a second epidemic, which has also been widespread in the State, from the extreme north to its southern boundary, and extending also westward to the railway termini. The differences between this and the former epidemic are relatively small; in the main the symptoms are identical, the chief differences being in the relative frequency of certain symptoms, such as the rash, the gastro-intestinal symptoms, etc. The epidemic commenced towards the end of December, and disappeared in June, lasting barely six months.

Origin and Mode of Spread.—There appears to be no room for doubt that the disease was imported from the north. It is undoubtedly highly infectious, but clinical observation does not enable us to form any definite opinion as to the mode in which the infection is conveyed from person to person. In some respects the spread of the disease suggests some peculiarity in the method of propagation differing from that of the well-known diseases influenza, scarlet fever, measles, etc. It appeared to spread particularly to contiguous houses, whole streets being attacked *seriatim*. One observation appears to have some bearing on the method of propagation. That is that medical men have in many instances appeared immune to the disease, although exposed to it daily, indeed hourly, until cases occurred in their own households, when they fell victims, being usually among the last members of the households to be attacked. Similar facts have been reported as to employeés in city warehouses. The earliest case reported to us occurred on November 24th, on the outskirts of the Spring Hill district, and another on December 2nd, by the same observer, in Swan Hill district. These appear to have been isolated cases; the first outbreak in an epidemic form occurred in the Spring Hill district near the end of December. The disease raged there throughout the month of January, while only a few isolated cases were reported from other districts, until early in February, when it appears to have established itself in fresh centres, and soon prevailed universally, both in the city and suburbs. In the appendix will be found further particulars.

Extent of the Epidemic.—No other epidemic disease attacks such a large proportion of the population. Among the medical profession the impression prevails that it is not an exaggeration to estimate that more than three-fourths of the population have been attacked. When the disease has entered a house, in the large majority of instances all the inmates are attacked sooner or later; it was the exception for one or two to escape, though this occurred sometimes. From the records given in the appendix as to the prevalence of the epidemic among the Civil Service, employeés of several large business firms and others, it appears that the incidence of the disease in these instances was from about 80 to 90 per cent. These figures probably do not include some of the mildest attacks, as in most instances they refer only to those who were absent from duty. In a suburban return (Belmont) the proportion is lower, about 70 per cent. Of 33 married men attacked in the defence force, in 25 instances their wives also had the disease, and of their 59 children, 57 were attacked. On the Island of St. Helena, in Moreton Bay, which is used as a convict station, the majority of the warders, who were exposed to infection by visiting town, were attacked, but the disease only spread on the island to a small extent. Among ten persons belonging to the families of the staff who did not leave the island, five were attacked—that is, 50 per cent. But of 195 prisoners only five had the disease—2·5 per cent. Even isolation in the city gaol had a marked influence on the number of cases, as is shown by the following return:—

BOGGO-ROAD GAOL.

	No.	Attacked.	Per cent.
Male division—			
Warders	12	10	83·3
Prisoners (aver. No.)	155	32	20·6
Female division—			
Warders	5	5	100
Prisoners (aver. No.)	40	29	72·5

Incubation Period.—It has been very difficult to gather reliable evidence under this head, owing to the multiplicity of possible sources of infection. The general impression seems to be that the period of incubation is from three to six days. There are good grounds for believing it may be as short as 24 hours.

The following cases give more definite information:—

Dr. Lockhart Gibson.—Dwelling five miles from Brisbane, a quarter of a mile from nearest neighbours; groom had only two opportunities of contracting dengue within a week of his attack: on Monday horsefeed brought by man convalescing from dengue; on Wednesday attended a sports meeting in town; Thursday evening malaise and fever; sent to hospital next day. Discharged Saturday week after having had a normal temperature for two days, and on the Monday evening following returned to his situation. On the Wednesday evening the cook noticed to have a temperature. She had had no other opportunity of contracting dengue for fully a week previously. Both cases had fairly severe attacks.

Dr. Falkner.—A woman at a solitary farmhouse, 10 miles from Toowoomba, was suddenly seized with the initial rigor of an attack of dengue one evening. Exactly 24 hours before, a nurse, who was convalescent from dengue, arrived from Brisbane, and slept in the same room. There had been no cases of dengue previously in the house, and as far as could be ascertained, there was no other possible source of infection. Seen a few hours before the arrival of the nurse she showed no symptoms of dengue.

Dr. Little.—A servant girl was away for 10 days in the bush. On her return she contracted dengue within 48 hours.

Dr. Love.—A nurse arrived from Southport, where there were no cases at the time, went to Lady Musgrave Lodge, where there was dengue; left same day to nurse a case, and fell ill on third day after arrival, though there was no dengue in the house she went to.

Dr. Wield.—A young woman came from Helidon, where there was no dengue, arriving on Friday at 1 p.m., stayed at an infected house, and developed the disease on Tuesday morning.

Dr. Brockway.—Mr. W. and two daughters landed in Brisbane from England on April 4th, and on April 8th they all showed symptoms, somewhat suddenly, of dengue.

Age Incidence.—All ages are attacked. The disease has been observed within a few days of birth. Infants usually contract the disease after the mother, but in one or two instances a baby on the breast was the first in the house to be affected. Occasionally suckling infants lying in bed with their mothers who are suffering from dengue escape the disease. Vigorous adults suffer most during the attack. Those previously in weak health are more liable to prolonged and retarded convalescence. The aged and infirm usually have the disease mildly, sometimes very mildly. A striking instance of this was furnished by the Diamantina Hospital for Chronic Diseases, which contains a large proportion of old people over 70, and others debilitated by advanced rheumatism, paralysis, cancer and phthisis. Of these two-thirds took the infection, but there were no deaths and no serious cases (excluding the phthisical patients). The proportion attacked may have been larger than two-thirds, as in many the symptoms were so mild as to be scarcely recognisable. On the other hand several phthisical patients had their tubercular disease aggravated and death accelerated.

General Sketch of the Symptoms.—Among the thousands of cases that came under observation there have been observed many rare and exceptional symptoms and complications. Lest the enumeration of these induce a false impression, it may be well to give a preliminary sketch of the prominent features of the great bulk of the cases. The onset is usually sudden, the initial rise being attended occasionally by a suffusion of the face, known sometimes as the initial eruption. Suffusion of the eyes, with often slight photophobia, is the rule at this stage. Sometimes the onset is attended by shivering. The pulse is not as a rule accelerated in proportion to the temperature, and may even be slowed. The initial rise of temperature is attended usually by severe headache, as a rule frontal or post-orbital, which, however, is often slight or absent in children. Severe pains, most marked in the lumbar region, but also affecting the limbs, are present in most adult cases. Anorexia is as a rule complete. The tongue varies; it is often densely furred, but may be clean and moist. In many cases abdominal pain and retching are a marked feature. On the third or fourth day there is a remission of the temperature, which sometimes falls to normal. A terminal rise succeeds the remission in typical cases, and is usually accompanied by marked aggravation of the pain in back and limbs and increased prostration. The characteristic eruption usually appears after the remission, and consists of a punctate roseolous eruption, often evanescent, very variable in its extent and to some degree in its character, but frequently absent even in well-marked attacks. In young children, who as a rule suffer less from other symptoms than adults, the rash is more prominent. The temperature usually falls abruptly at about the end of the fifth period of 24 hours after the invasion. With the fall all the symptoms ameliorate, but do not disappear for another two or three days, or perhaps longer, the tongue when furred often being slow to clean, and the distaste for food often continuing after the patient has improved in other respects. The respiratory system is notably free from implication. Complications and sequelæ are infrequent, though loss of strength and general prostration are often rather severe after an attack, and strength is slowly regained.

Onset.—This is sudden in the great majority of cases, being comprised within a few hours. In some well-authenticated instances it is dramatically sudden, the patient being able to point to the actual minute which separated a consciousness of good health from well-marked sensations of fever, headache, general pains, and prostration. Occasionally the patient complains of slight symptoms—headache, prostration, muscular pains—for one or two days before the initial rise of temperature. Shivering, rarely amounting to actual rigor, is common during the initial rise of temperature.

Temperature.—The average range of temperature had its highest point between 102° and 103°; in a smaller proportion it reached 104°; and cases with temperatures above this point were exceptional. The duration of the temperature was seldom over five or six days, and the prophecy that the temperature would fall at or soon after the end of the fifth period of 24 hours after the onset was seldom falsified, though cases of longer duration were observed. In one typical case the temperature lasted two weeks, and fell by crisis, without any complication to account for its long continuance. The initial rise of temperature was usually moderate, not over 102°, and was in the majority of cases succeeded by a fall on the third, less often the fourth day, sometimes to normal. This remission or intermission would last a few hours and would be succeeded by a terminal rise lasting one or two days, during which the temperature would reach its greatest height, falling by crisis to the normal soon after the patient had appeared to be at his worst.

Hyperpyrexia.—Temperatures over 105° have been noted, but only in a small minority. For instance, a child aged three, with extremely developed universal rash, had for some hours during the night a temperature of over 106°, with a weak, running pulse, but recovered. A girl aged 16 had a temperature of 106° in the mouth at the onset of the attack. A girl aged six had a temperature almost 107° shortly after admission into hospital; it fell rapidly after tepid sponging. Several fatal cases in children had hyperpyrexia.

Pulse.—As a rule the pulse is slow in comparison with what would be expected from the rise in temperature. It is common to have a pulse of 75 to 80 with a temperature of 102° or 103° during the first two or three days. Towards the close of the attack the pulse may be more accelerated. There are exceptional cases in which the pulse is accelerated at the onset, and they usually occur in weakly subjects. Several cases have been observed in which the pulse sank to 44 or 48 during or after the second day, with continued pyrexia.

Headache.—This symptom is present in nearly all adult cases, and is usually severe. Post-orbital or frontal headache is the most common form, but there is sometimes also severe parietal or occipital headache, which may be accompanied by hyperæsthesia of the scalp. The eyeballs may be tender to pressure. In some cases there is pain on movement of the eyes, apparently dependent on affection of the ocular muscles. In this condition the patient endeavours to keep the eyes fixed, as any movement of them causes suffering. One case had diplopia unaccompanied with pain.

Muscular Pains.—Most adults suffer from severe backache, apparently located in the lumbar muscles. This symptom may be present at the invasion, or may appear later than the headache, and is usually more persistent. Often the patient complains of it bitterly. Less frequently the pain is felt more in the inter-scapular region. Hyperæsthesia of the skin of the back has been observed. Intercostal and abdominal muscular pains are frequent, and are sometimes the symptoms most complained of. Sometimes these pains are specially referred to the scars of old abdominal operations. In many cases muscular pains are felt in the limbs, especially the calves.

Periarticular Pains.—These are frequent, more especially in or about the lower ends of the femora. Possibly some of the back pains are of this character. They are certainly not in the joints, and are not at all aggravated by movement, and could not be confused with the pains of acute rheumatism. They consist of a dull aching, more or less severe, the sensation suggesting either affection of the bone-ends or of the deep insertions of the muscles or ligaments. One medical man had marked hyperæsthesia of the skin around one knee-joint. Sometimes there are shooting pains in the hands and feet. The very severe limb pains of "break-bone" character have been observed in this epidemic, but only in comparatively few cases.

Initial Eruption.—In many cases there is a flushing of the face, sometimes blotchy and sometimes spreading into the neck. It appears in the first 24 hours, and soon disappears.

Suffusion of the Conjunctivæ and sometimes evident congestion are very common at the onset. With this there is often some photophobia, slight in degree. These symptoms are less marked than in measles.

Nasal Catarrh has been markedly absent.

Sore Throat is sometimes complained of, but on inspection only a moderate degree of congestion is observed. Some observers have noticed a rash on the soft palate.

Tongue.—The condition of the tongue varies between very wide extremes. In many cases the tongue is rapidly furred, and on the third day may be as thickly coated as that of a neglected typhoid patient in the third week. The furred tongue may become brownish and rather dry on the dorsum, but a markedly dry tongue has not been observed. In many the tongue remains moist, flabby, perhaps teeth-indented, the fur often looking like a moist coat of whitish or yellowish paint. On the other hand, many patients retain a clean, moist tongue—according to some observers the majority—and this condition may be present in severe cases with a high degree of gastric irritability. Most patients complain of an objectionable taste, variously described as a "fetid taste," "bitter metallic taste," or "soapy" taste, intensified by taking food. The furring of the tongue if present sometimes remains several days after defervescence, and may be very slow to clean. The objectionable taste may disappear still more slowly. The sensation of flavour, particularly of such things as tea and whisky, is perverted.

Larynx.—A dusky redness of the larynx, nasal mucous membrane, and nasopharynx is characteristic, and may persist for a week or longer after convalescence.

Salivary Glands.—These are not enlarged, and there is no salivation.

Lymph Glands.—These are not enlarged as a rule, but enlargement of the cervical glands is not uncommon. Sometimes the femoral, inguinal, and axillary glands are enlarged. Occasionally the glands most enlarged are tender, but the tenderness is not acute. The enlargement is always discrete, and there is no periglandular thickening nor tenderness.

Liver.—Enlargement of the liver and jaundice were not observed.

Spleen.—No clinically recognisable enlargement was observed.

Lungs and Bronchi.—The absence of respiratory complications is a conspicuous feature. Sometimes slight bronchitis appears in those previously disposed towards bronchitic attacks. More than one observer has noticed this to be occasionally associated with rusty sputum not due to pneumonia. In a few cases—not phthisical—hæmoptysis was observed of uncertain origin. An irritable cough, probably laryngeal, was sometimes observed. Several practitioners and others have noticed a peculiar odour in the patient's breath. Others note a sour acid smell, probably of the perspiration, but different from that of rheumatism.

Heart.—No endo- or peri-cardial affection is observed, though præcordial pain is common. There have been a few cases of threatened or actual heart failure from affection of the heart muscles or nerves. Cardiac weakness is sometimes noticeable during convalescence. The condition of the heart should be carefully watched, especially in patients past middle life.

Stomach and Bowels.—Complete anorexia is the rule, and there is consequently considerable loss of weight. A few exceptional cases have continued to take ordinary food through the attack, but anorexia is usual even in slight seizures. Thirst is not marked as a rule. Vomiting and retching occur in a considerable proportion of the cases, both as early and late symptoms or throughout the attack, fortunately not in the majority. They are the most troublesome symptoms when they occur, and rapidly reduce the patient to prostration. The retching may be frequently repeated without actual vomiting, the nourishment given being retained and only a little clear liquid being brought up. Gastric pain appears to be present sometimes quite distinct from that in the abdominal wall. It is much aggravated by flatulence, and may be very acute. A feeling of oppression in the stomach is perhaps more common than actual pain. Colicky pain with tenderness resembling appendicitis has been observed. Constipation is the rule, but some few suffer from diarrhœa with mucus or dysenteric evacuations. One patient developed on the fourth day a severe attack of dysentery which gave great anxiety, and kept him an invalid for two months.

Nervous Symptoms.—Headache is present in almost every case except in children, in whom it is usually slight or absent. Insomnia is a common symptom and is often that most complained of. Children, however, are usually drowsy while the fever lasts, and this may be the case in adults. Persistent and annoying dreams are complained of by some patients. Delirium is less than would be expected from the intensity of the fever. Very rarely there is severe delirium. Sometimes there are hallucinations. In children convulsions may come on with the initial rise of temperature (rarely later), especially in those under five years. One infant of ten weeks had fatal convulsions with hyperpyrexia on the fourth day. Depression varies much in different patients. It is usual after the third or fourth day and during convalescence. Mania was observed in two cases; hysteria in several. The poison of dengue appears to have a special action on the peripheral nerves, and doubtless this is the explanation of the very various pains which are so common, often severe, and occasionally unbearable. That this is so is confirmed by the cases of cutaneous hyperæsthesia. Affection of the motor nerves is seldom observed, but the case of diplopia can hardly be otherwise explained. Among the sequelæ peripheral neuritis is noted, though in but few cases.

Hæmorrhages.—Epistaxis occurs sometimes, more often in children, and may be profuse. Hæmatemesis has been rarely observed in the present epidemic. Hæmoptysis has been already noted as occurring in a few instances. Hæmaturia has been observed once or twice in patients with previously healthy kidneys. Subconjunctival and retinal hæmorrhages are also of rare occurrence. Several cases of cerebral hæmorrhage took place during attacks of dengue. One case had subcutaneous hæmorrhage in one leg accompanied by effusion of blood into the ankle-joint. Some degree of increased menstrual loss is the rule, and may amount to menorrhagia. The period is also usually accelerated.

Renal Functions.—Albuminuria is not often observed, but there have been several instances of a fair quantity of albumen appearing during the attack and disappearing soon after defervescence. In one case it did not disappear for two or three weeks. In some cases the urine is extremely scanty, high coloured, and loaded with urates. One case is reported of a non-pregnant woman in whom dengue was accompanied by albuminuria and convulsions. The patient recovered and the albumen disappeared during convalescence. Another case was a woman over eighty who had previously suffered from high arteral tension and infrequent pulse without albuminuria, but developed 5 per cent. of albumen with the onset of dengue; the albumen disappeared a few days after defervescence. Several other similar cases could be quoted, and probably albuminuria occurs more often than is suspected. One case of adolescent albuminuria was apparently cured by an attack of dengue.

Terminal Rash.—This appears on the fourth or fifth day, and is often first observed just before or after the crisis. It may, however, appear earlier. In many cases the rash is slightly developed and evanescent. In this epidemic a large proportion of patients, placed by some at one-half or more, have had no rash. There is, however, some difference of opinion on this point, and some would place this proportion lower. This appears to be due partly to the greater diligence displayed by some in searching for a slight and fugitive rash; partly by their recognising slight appearances, which others would not consider to be distinct eruptions. While no rash has been observed in some severe cases, it has been usually absent in mild cases, except in children, in whom its absence is infrequent. The usual rash is an eruption of minute red spots, smaller, less raised, and brighter red than those of measles, but considerably larger, more discrete, and not so vividly red as those of scarlet fever. On the whole it has most resemblance to the eruption of rubella. Its favourite sites are the upper part of the chest, back, extensor aspect of limbs about elbows and knees, and the front of the forearms. In a minority the rash affects the palms and soles as a carmine-pink suffusion, which is extremely characteristic. More rarely the rash in these parts may be punctiform. In children the rash is occasionally universal, the face included, and largely confluent; so that although commencing differently it comes to resemble a highly developed scarlet fever rash. In most cases the rash on the palms and soles is extremely itchy, that on other areas is less frequently so. The itching persists after the rash has disappeared for a day or two. If the rash is much developed it is followed by desquamation, which is most marked on the hands and feet. In one child with an extreme rash the desquamation was in flakes, the cuticle separating from the fingers and toes like glove ends. One adult also had complete desquamation. In some cases the rash varies from the common form. In a few severe cases there has been a dusky rash of discrete spots widely distributed over the trunk and limbs, lasting several days and somewhat suggestive of measles. A scarlatiniform rash has been seen in a few cases by several observers. An eruption of urticarial wheals has replaced the usual rash in one or two cases. One case of a petechial rash is recorded. No sporadic cases of measles or scarlet fever have been noticed during this epidemic.

Relapses and Second Attacks.—An attack of dengue during the previous epidemic had very little or no protective influence in this one. Though dengue usually runs its course within five to seven days, cases have occurred in which fever continued for ten days or more, often with a remission, sometimes with two outbreaks of the rash, and these may be looked on as cases of relapse. In others several days or a week of normal temperature intervene. Between these cases and second attacks no line can be drawn. Second attacks have occurred at intervals up to three months. As a rule these have been severe, and have followed mild attacks, but the contrary has been observed.

Complications.—Pneumonia and pleurisy are very rare complications; a few cases have been observed; parotitis has occurred also in a very few; orchitis was noted in several cases. Ulceration of the mucous membrane of the mouth and gingivitis was occasionally noted; in one case this was followed by fatal tetanus. Superficial ulceration of the fauces is also recorded. Diarrhœa, sometimes with mucous evacuations, is not very infrequent. Dysuria occurs now and then, but actual retention is very rare. Pregnancy in most cases has not aggravated the disease, but there has been a tendency to miscarriages and premature labours. In some of the latter instances the children were stillborn. Dengue in the puerperium does not seem to have been specially harmful.

Sequelæ.—Boils and carbuncles have not been very uncommon sequelæ. An itchy vesicular eruption on the fingers and palms of the hands is occasionally troublesome. Two cases had widespread eczema. Women frequently complained of shedding of the hair during convalescence, and cases were noticed in which the hair went rapidly grey. A special proclivity to X-ray burns was noted in two patients after attacks of dengue. Perfectly similar exposures with the same tubes had been previously well borne by them. Muscular rheumatism, including backache and inflammatory pain, was sometimes persistent. Three cases of synovitis of the knee are recorded. Mastitis occurred in two cases; neither suppurated. Venous thrombosis, sometimes ending in suppuration, was a very rare sequela. One case of gastritis is recorded, also one of diabetes. An adult (35 years), who had previously suffered from slight albuminuria and slight cardiac hypertrophy, suffered from repeated attacks of heart failure after the subsidence of dengue. He had never had such attacks previously. Another case had persistent and troublesome palpitations without cardiac lesion. Keratitis and corneal ulceration occurred both as complications and sequelæ, but, fortunately, in a very small minority of cases. Dr. Lockhart Gibson reports some interesting cases, which are given in an appendix. Asthenopia was sometimes noted for the first time or aggravated. In one case optic atrophy, probably from retrobulbar neuritis, supervened. Neuralgias are not uncommon. Slight symptoms of peripheral neuritis were noted by several observers. Usually numbness was the most prominent symptom, accompanied by some paresis, and perhaps by loss of knee-jerks. Giddiness was sometimes complained of. Nervous depression and loss of memory sometimes persist after the attack. Loss of memory for words and a tendency to misplace letters in writing are recorded by two observers. In one or two cases the nervous depression progressed to melancholia, which subsequently cleared up.

Dengue complicating previously existent diseases.—In nephritis the quantity of albumen is increased, and in a few uræmia supervenes. But many cases of nephritis go through the disease without apparent harm. One case of diabetes had fatal coma. Cases of phthisis often go to the bad after an attack of dengue. Skin diseases are aggravated; so is previously existent neuritis. Any ulceration, especially varicose, is apt to spread.

Mortality.—In the return kindly furnished by the Government Statistician, which will be found appended to this report, 94 cases are reported to have died from dengue in Brisbane among a mean population of 125,672. The great bulk of the mortality occurred during the months of March and April, during which it considerably swelled the general mortality. If it be assumed that one-half the population were attacked, this would correspond to a case mortality of 1 in 668; if 75 per cent. were attacked, which is probably under the mark, to a case mortality of 1 in 1003. The mortality was relatively greater in females than males. The highest mortality occurred at the extremes of life, those under five years of age contributing 37·6 per cent., and those over 60 years, 35·5 per cent. of the total. The mortality returns probably give an exaggerated idea of the immediate fatality of the epidemic. The overwhelming majority of those attacked are never in a condition to give rise to any anxiety. Some medical practitioners with large practices have seen no deaths; others only a few. In the Brisbane Hospital, out of 566 cases admitted (and therefore no doubt selected as being severe) there was only one death.

As a result of inquiries, we are indebted to several medical men for particulars regarding the fatal cases occurring in their practices, and adding to these those that came under our own observation, we have collected 35 cases, of which one occurred in Toowoomba, eight in Ipswich, and the remainder in Brisbane:—

UNDER FIVE YEARS.

Children's Hospital.—A child, aged three years, developed hyperpyrexia, with some convulsive seizures, on the fifth day. The temperature resisted antipyretic measures. Death occurred from heart failure within 24 hours.

Dr. Bancroft.—A feeble infant, aged six months, was seen with a slight rash, temperature of 101°, and vomiting, and died suddenly on the same day.

Dr. Kerr-Scott.—A healthy female infant of 10 weeks took convulsions, with hyperpyrexia, on the fourth day, and died in six hours. A female infant of 10 months developed bronchitis on the sixth day. Sudden and unexpected death from syncope on the ninth day.

Dr. Brockway.—An infant of five days developed a copious rash, refused the breast, and died.

Dr. Turner.—A boy, aged two, was seen about the fifth day with a slight rash and great prostration. Died from heart failure next morning. A girl, aged four years, who had suffered for many months from chronic lead poisoning, but had improved, died of long-continued convulsions, which were probably uræmic. They came on a few days after temperature had fallen.

Dr. Halford.—Female twins, aged 11 months, both delicate from birth; bottle reared; had been subject to gastro-intestinal disturbances, and contracted dengue about one month before death from exhaustion. Both cases were complicated by staphylomatous ulceration of corneæ.

Dr. Cameron (Ipswich).—Girl, aged four years, suddenly seized with fever, restlessness, pains all over. Next morning convulsions, which lasted until death, 24 hours after onset. Mother was in bed with dengue, and father had had it a few days before, so that it was inferred that the child was suffering from the same. It was apparently healthy, but had had convulsions on two previous occasions. Male infant, aged eight days. Mother suffering from dengue when confined. Baby, healthy at birth, suddenly became febrile, and died after a few hours' convulsions; probably dengue. Male infant, aged 11 months; severe attack; on third day repeated convulsions, high fever and death. Infant of 17 months. Fatal convulsions on second day.

BETWEEN FIVE AND SIXTY YEARS.

Dr. Kerr-Scott.—Female, aged 29 years. Advanced phthisis, dengue and exhaustion.

Dr. Love.—A stout man, aged 55, who had previous symptoms of cardiac weakness, died of sudden heart failure shortly after the subsidence of dengue. A child of eight had persistent vomiting after dengue and died of exhaustion.

Dr. Thomson.—A lad, who had been a cellarman and drank freely, died of cerebral hæmorrhage within 48 hours after getting out of bed.

Dr. Hawkes.—Woman, aged 28, 2½ months pregnant, had a severe attack of dengue; temperature 103° to 104°; within 24 hours had uterine hæmorrhage. When seen on third day had offensive discharge; uterus tender and soft. On fourth day uterus emptied by finger and soft, blunt curette. Uterus flabby and almost impalpable; very little hæmorrhage. Did well for three days, and then died with symptoms of pulmonary embolism within a few minutes. Woman, aged 23, who had probably had a fatty heart for some years, on third day had cardiac pain, dyspnœa, acute dilatation of the stomach, and died in a few hours.

Dr. Turner.—A woman, aged 46 years, who had been under treatment for some months for anæmia with subcutaneous hæmorrhages, complicated by hæmaturia at first, and later by albuminuria without blood, had suppression of urine and fatal convulsions on second day after temperature had fallen to normal.

Dr. Halford.—Married woman, aged 42, had on fourth day severe abdominal pain and collapse. When seen on the fifth day nothing could be found to account for symptoms; died soon after. Man, aged 24, died of phthisis accelerated by dengue.

Dr. Cameron (Ipswich).—Man, between 30 and 40, had a moderately severe attack, keeping him in bed a week. Two days after getting up had difficulty in walking, incoördination of legs, loss of knee-jerks, no impairment of sensation. He was not seen again, but died a week later. A very stout woman, aged 50, had severe dengue with persistent vomiting and diarrhœa; died of heart failure; probably heart was fatty.

Dr. Falkner (Toowoomba).—Man, aged 35, a baker, had been much overworked, owing to illness of employees. Dengue with extremely severe vomiting and diarrhœa aggravated by injudicious diet. Died of exhaustion on the 13th or 14th day, though his temperature had come down.

OVER SIXTY YEARS.

Dr. Kerr-Scott.—A man of 68 years, who had suffered from diabetes for several years, became extremely weak and died on the fifth day. A woman, aged 80, had dengue complicated by nephritis on the fourth day. Died on the seventh day from heart failure after almost complete suppression for 24 hours

Dr. Bancroft.—A feeble old woman, aged 70, died from cerebral hæmorrhage; had had an attack some years previously. A feeble old man, aged 70, subject to fainting attacks, died after a week's illness. A case, aged 70, suffering from cardiac disease, died of syncope.

Dr. Thomson.—A feeble old woman, who had had a weak heart, died suddenly.

Dr. Hawkes.—Female, aged 78, had had mitral disease with enlarged degenerated heart. On fourth day had an anginal attack, followed by a fatal seizure a few hours later. Urine albuminous before the dengue for some time.

Dr. Halford.—Woman, aged 75, subject to chronic bronchitis and dilation of right heart, gradually developed broncho-pneumonia, and died about three weeks after contracting the infection.

Dr. Cameron (Ipswich).—Female, aged 74; severe attack; persistent uncontrollable vomiting, then diarrhœa. Male, aged 63, healthy; dengue and diarrhœa, finally passing almost unmixed blood; ill two weeks.

SOME GENERAL REMARKS ON DENGUE.

In its occurrence in wide epidemics, its rapid diffusion, the large proportion of the population attacked, and very closely in its symptoms, and their comparatively short duration in most cases, dengue closely resembles influenza. The usually sudden, sometimes instantaneous onset, the severe headache, backache, and limb pains, the pyrexial symptoms, and many of the complications and sequelæ are common to both. The rash of dengue, which is, however, not a constant symptom, is sufficiently distinctive; but of even more importance is the almost invariable absence of catarrhal symptoms of the respiratory tract, and the extreme rarity of pulmonary complications. At the outset of an epidemic of dengue it is very commonly mistaken for influenza, and often it is not until the practitioner has seen several cases with a rash that he revises his opinion. In future, supposed outbreaks of influenza occurring in Queensland during the hot season will be rightly regarded with suspicion. The initial symptoms of yellow fever, a disease fortunately unknown in this part of the world, closely resemble those of dengue as far as the stage of remission. In dengue, too, there is a comparatively slight but real tendency to hæmorrhages of various kinds, including hæmatemesis. In Brisbane the symptoms of dengue have been observed free from any complication with malaria. We understand that in the north of Queensland some confusion has occurred from the intercurrence of the two diseases. Judging from the experience of our two epidemics, and from those recorded elsewhere, dengue, like other infectious fever, appears to vary somewhat in type. The proportion of severe cases, and the relative frequency of many of the symptoms and complications are not always the same, but dengue appears to be for all that a disease as distinctive, and as easily diagnosed, when it prevails in the epidemic form, as the other exanthemata.

APPENDIX I.

Statistical Office,
Brisbane, June 21st, 1905.

Sir,—In accordance with your personal request I have much pleasure in quoting particulars relating to the mortality from dengue fever during the first five months of this year as recorded in this office. The details are as follows :—

METROPOLITAN AREA (10 MILES).

Month.	Population 31st Dec., 1903.	Total Deaths.		Deaths from Dengue Fever: Under 5	5-20	20-40	40-60	Over 60	Total
January ..	125,672	M.	76	..	..	..	..	..	..
..		F.	40	..	..	..	..	..	..
February ..		M	63	..	..	1	..	1	2
..		F.	55	..	..	..	..	..	..
March ..		M.	85	2	..	2	..	10	..
..		F.	96	11	1	2	4	7	39
April ..		M.	81	11	..	4	1	6	..
..		F.	61	5	3	2	4	7	43
May ..		M.	68	1	..	1	..	1	..
..		F.	57	5	..	..	..	1	9
Total ..		M.	373	14	..	8	1	18	..
		F.	309	21	4	4	8	15	..
			682	35	4	12	9	33	93

I have the honour to be, Sir,
Your obedient Servant,
(Signed) THORNHILL WEEDON,
Government Statistician.

Dr. A. J. Turner,
Wickham Terrace, Brisbane.

P.S.—One death from dengue, that of a male aged 60 years, was reported in June, none in July.

APPENDIX II.

Dr. Lockhart Gibson reports three cases of keratitis during dengue, and five cases (three adults and two children) occurring immediately subsequent to the attack or during convalescence. The latter he considers to be examples of "keratitis neuroparalytica" from neuritis of the corneal terminations of the ciliary nerves. A triangular area with its base at the corneal margin and its apex at or beyond the corneal centre is involved and becomes insensitive. Some of the cases are serious, and all are extremely slow in recovering, owing doubtless to persistence of the neuroparalytic state of the cornea.

In the cases of keratitis observed during the actual attack, in each case an irregular and prolonged one, he considers that in addition to keratitis neuroparalytica there was infective ulceration of the cornea, probably directly induced by the infective organism of dengue. Of four eyes involved, one cornea, an adult's, became entirely destroyed. Two other cases, twins, aged ten months, who died from prolonged attacks of dengue with recurring hyperpyrexia, prior to death one cornea of one became staphylomatous, and each cornea of the other had a large perforation due to the formation and separation of a slough.

APPENDIX III.

DIFFERENTIAL BLOOD COUNTS IN DENGUE.

	Lymphocytes.	Large mononuclear.	Polymorph.	Transitional.	Eosin.	Amœboid.
Dr. Love—						
F., aged 22, 1st day	3·3	7·3	81·3	..	..	8
M., aged 36, 1st day	29·6	6·	61·	3·	..	..
F., aged 32, 2nd day	29·	8·6	61·	..	..	..
— 4th day	16·7	20·	48·3	2·9	·5	11·6
F., aged 25, 4th day	18·4	19·6	58·6	..	·4	2·2
Dr. Tyrie—						
M., aged 41, 3rd day	23	20	54	..	3	..
F., aged 21, 2nd day	17	25	57	..	1	..
F., aged 40, 3rd day	26	17	57	..	0	..
M., aged 15, 2nd day	8	30	60	..	2	..

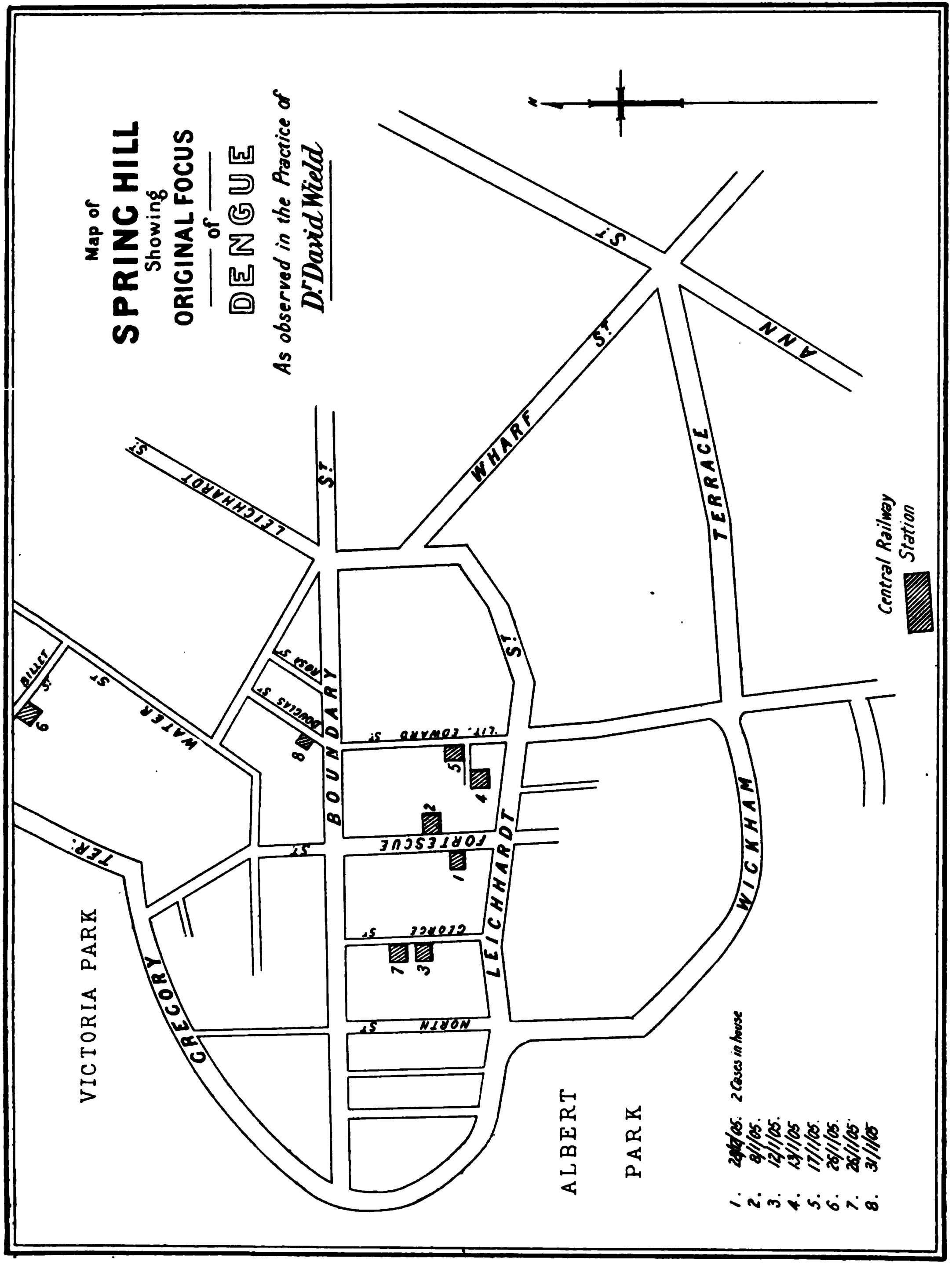
The decimal fractions have been adjusted.

APPENDIX IV.

Dr. Wield.—The earlier cases of the epidemic seem to have been absolutely limited to the western part of the district of Spring Hill. This part of the city is comparatively high above sea-level, is fairly densely populated, and is one of the oldest divisions of Brisbane. Two sisters living in the highest part of Fortescue-street were attacked on the 28th and 29th December respectively. The fact that a brother had lately arrived from Port Darwin gave credence to the theory that he had introduced the infection, but inquiry produced no evidence to prove it. He had not suffered from dengue before or during his voyage, and since his arrival in Brisbane, on December 4th, had been in good health. From this first house the medical attendant traced the spread of the disease as it occurred among his own patients. A house in the same street and almost directly opposite had its first case on January 8th. One just behind "House No. 1," situated in George-street, the street parallel to and west of Fortescue-street, had a case on the 12th, while another behind and near to "House No. 2," and situated midway between the east side of Fortescue-street and Little Edward street, had cases beginning on the 13th, and the nearest house to it in Little Edward street showed the same illness on the 17th. These five houses were within a radius of about 100 yards and almost in a direct line from east to west. On the 26th a case occurred in Billet-street, still in Spring Hill, but half a mile further east. The patient first attacked there was found to have been in service in "House No. 1," and had doubtless brought the infection from there. On the same day another case occurred in George-street, next door to "House No. 3," and on the 31st a case in Douglas-street, almost a continuation of Little Edward street, was seen, and here the infection was traced to the visits of a relative from the house in Little Edward street already mentioned. From these foci the further spread was rapid. Soon every other house in Spring Hill had its cases, and their convalescents spread the disease through every part of the city.

Dr. Love.—Eleven houses furnished cases in January, and of these ten were in Spring Hill. After February 9th cases appeared to be generally distributed in other suburbs :—January 18th, Fortescue-street; January 19th, George-street, Spring Hill, and Confederate-street, Red Hill; January 20th, Terrace-street, Spring Hill; January 24th, Fortescue-street; Berry-street, Spring Hill; January 26th, Berry-street; January 27th, Leichhardt-street and Little Edward-street; January 30th, Downing-street, Spring Hill; January 31st, Wedd-street, Spring Hill.

Dr. Carvosso.—Seven houses infected in January, all in Spring Hill :—January 23rd, Leichhardt-street; January 25th, Leichhardt-street; January 27th, Leichhardt-street; January 28th, corner Leichhardt


Map of
SPRING HILL
Showing
ORIGINAL FOCUS
of
DENGUE
As observed in the Practice of
Dr David Wield
N
ANN ST.
WHARF ST.
TERRACE
LEICHHARDT ST.
BOUNDARY ST.
ROSS ST
DOUGLAS ST
LIT. EDWARD ST
FORTESCUE
GEORGE ST
NORTH ST
LEICHHARDT
WICKHAM
BILLET ST.
WATER ST
GREGORY TER.
VICTORIA PARK
ALBERT PARK
Central Railway Station
1
2
3
4
5
6
7
8
1. 2[illegible]/05. 2 Cases in house
2. 8/1/05.
3. 12/1/05.
4. 13/1/05
5. 17/1/05.
6. 26/1/05.
7. 26/1/05.
8. 31/1/05

and Boundary streets; January 29th, Hope-street, Spring Hill; January 30th, Upper Edward-street; January 31st, Boundary-street.

Dr. Marks observed two isolated cases long before any recorded by the previous observers. In January his experience coincides with them, but cases outside Spring Hill were observed towards the close of the month:—November 24th, Gotha-street, Valley; December 2nd, Nicholas-street, Swan Hill; January 11th, Fortescue-street; January 15th, Fortescue-street; January 19th, Parish-street, Spring Hill; George-street, Spring Hill; Fortescue-street, Leichhardt-street; January 21st, Leichhardt-street; January 23rd, Isaac-street, Spring Hill; January 24th, Fortescue-street and South Brisbane Gasworks; January 25th, Ellis-street, Kangaroo Point; Windsor road, and Enoggera Police Station; January 26th, Fortescue-street; January, 28th, Cordelia-street, South Brisbane; January 29th, Leichhardt-street and Wedd-street.

APPENDIX V.

Hospital for Sick Children.—Resident staff (including nurses, servants, etc.), 41; attacked, 36.

Diamantina Hospital for Chronic Diseases.—Resident staff: Males, 6; attacked, 4; females, 20; attacked, 19. Patients: Males, 42; attacked, 26; females, 37; attacked, 25.

Lamington Hospital for Women.—The whole of the nursing staff (7), all the patients (9), and domestics (2) were attacked.

	Total No.	Attacked.	Percentage
Resident Staff of three Hospitals ..	74	66	89·2
Wholesale and retail butchering Firm: Town employees ..	124	114	91·9
Do.: Woolcombers at Belmont	42	30	71·4
City Warehouse	65	58	89·2
City Clothing Factory	471	435	92·4
Newspaper Literary Staff ..	30	28	93·3
Grammar School Boarders and Resident Masters	41	40	97·6

	Total employees.	Total absent from dengue.	Percentage.	Av. No. of days absent from work
City Warehouse ..	418	374	89·5	4·11
City Office of Bank ..	76	62	81·6	6
Gasworks: Outdoor Employees	48	31	64·6	—
Officers in the Public Service in Brisbane (exclusive of Education Department & Railways)	993	732	77·1	6·5
Commissioner for Railways Offices, Brisbane	96	87	90·6	7·6
Defence Force, Brisbane	—	88	—	7·85
Tramway Motormen and Conductors	347	311	89·6	8·76

The Health of Queensland.

Abstract of the Report of Dr. Burnett Ham, the Commissioner of Public Health for Queensland.

Legislation.—"The Dairy Produce Act of 1904," providing for the better control of dairies and for the regulation of the milk supply, relieved the department of the inspectors appointed under Part III of "The Health Act Amendment Act of 1886." Experience has shown that Part VIII of "The Health Act of 1900," providing for "Infant Life Protection," is totally inadequate to deal with many cases of neglect by persons receiving, for hire, infants for nursing, and to ensure the proper feeding, protection, and care of infants. The provisions of the Health Act relating to the sale of bread also require amendment. This is especially the case with respect to the storage and delivery of bread. A short Act, regulating the sale and delivery of bread in the city of Brisbane, and such other places as may from time to time be proclaimed by the Governor in Council, would be welcomed by the public. In March, April, and May of this year regulations for the better prevention of the spread of plague by rats were made by me and approved of by the Governor in Council. One or two men experienced in rat-catching are employed by the department at several of the northern ports where plague has occurred in man or in rats. Three cases of plague have been recently reported at Cairns, two of the patients being men employed in rat-catching. A case of plague at Townsville was reported on the 4th instant, and some 63 plague-infected rats were found on the wharves there. A gang of five men, under the personal supervision of an inspector of the department, is now employed in rat-destruction at Townsville. In view of the above-mentioned reports, the possibility of the carriage of plague-infected rodents from Townsville and Cairns to Brisbane is regarded with grave concern. The Health officer at Brisbane boards all vessels arriving from the infected ports, and no cargo is permitted to be discharged from such vessels except under the personal supervision of an officer of this department. Under "The Health Act of 1900," a local authority is bound to abate nuisances injurious to the health of the inhabitants of its area, to prevent the pollution of its water supply, and generally to carry out the provisions of the statute to the best of its ability, and as far as funds will allow.

Administration.—Efficiency, with due regard to economy, has been kept steadily in view in the administration of the department. The aim of the department has been to economise expenditure, consistent with judicious management. The members of the Central Board of Health have, as in former years, given me much assistance and guidance in the administration of the Health Act, and more especially in those matters pertaining to inter-State affairs. A conference with Dr. Ashburton Thompson, chief health officer for New South Wales, was held at Brisbane in June last with reference to the plague regulations imposed by the New South Wales Government, and which, for a time, so seriously affected Queensland shipping and commerce. After a full statement of the facts concerning the measures taken by this department to prevent the spread of plague infection had been placed before the chief health officer of New South Wales, that gentleman recommended to his Government the withdrawal of many, and the amendment of several, of the more restrictive measures which had been enforced against importations to New South Wales from Queensland. The proposed Federal legislation on quarantine should secure that uniformity of action and certainty of procedure in the administration of the plague regulations of the various States which, up to the present, have been notoriously absent.

The loss to the department of Dr. Baxter-Tyrie, who is resigning his position as health officer to take up private practice, will be keenly felt.

Infectious Diseases.—During the past year the notified attacks of typhoid fever, scarlet fever, diphtheria, and deaths from phthisis have been remarkably low

A more general recognition of the protection of the public health which is afforded by prompt official notification and isolation of the affected person, together with the cleansing and disinfection of infected premises, and the remedying of sanitary defects, have no doubt contributed in a large measure to the result obtained. While epidemics of notifiable diseases have been comparatively few throughout the State during the past year, it is interesting to note the extraordinary waves of other and more rare diseases which have passed over the State during the past 12 months. In the months of July and August of 1904 a short but sharp epidemic of influenza occurred at Brisbane and other cities and towns in the State. Following this, a widespread outbreak of mumps attacked a very large proportion of the population, adults as well as children. This epidemic had hardly subsided before a new disease—infantile paralysis—was reported. Details of some 108 cases were gathered, excluding 23 cases reported by members of the medical profession as cerebro-spinal meningitis. An epidemic of dengue fever prevailed in Queensland from February to June of this year. No other epidemic in Queensland attacked so large a proportion of the population of the State. As the disease was not a notifiable one under the Health Act, it is impossible to arrive at the precise statistics of the outbreak, but probably not less than three-fourths of the population of Brisbane were attacked, while epidemics, more or less severe, were reported at all the large centres of population. The direct mortality from dengue fever was very low. The incidence of other diseases—notably plague, typhoid fever, and scarlet fever—in Brisbane during the months of the dengue fever epidemic, showed a remarkable difference from their behaviour in previous years. A marked drop in the number of plague cases for the months of March-June of this year was observed, while but 68 cases of typhoid fever were notified, as against 186 of last year. Plague appeared again during the year, the first case being notified in Brisbane on August 12th, 1904. Thirty-four cases occurred in Brisbane, 7 at Ipswich, 1 at Childers, 1 at Cairns, and 10 at Maryborough; a total of 53 cases from July 1st, 1904, to June 30th, 1905. Nearly four months elapsed between the last case of 1904 and the first case of 1905, which was reported on New Year's Day. Of the 53 cases, 28 died, which gives a gross death rate of 52·8 per cent. Deducting one fatal case of a Chinaman, the figures give a corrected death rate for white races of 50·9 per cent. Deducting fatal cases which were not treated for plague—*i.e.*, cases diagnosed, post-mortem, and a few who died after diagnosis, but before they could be treated—the figures give a death rate for treated cases of 33·9 per cent. The number of men employed on the cleansing and rat-destruction staff maintained by the department was reduced in March last from 50 to 20 men, and in June to 10 men. This staff has done a considerable amount of excellent work, and the improvements effected in premises used for the storage of grain, fodder, and other produce specially liable to rat infestation, together with the number of breeding places of rats broken up and rodents destroyed, have gone far to reduce the disease-carrying vermin to a minimum. Until legislation be passed empowering the local authorities to prosecute occupiers or owners of premises for allowing conditions favourable to infestation by rats to occur and continue upon their premises, it is imperative that the departmental staff should systematically search such premises, and clear them of vermin, in the interest of the community. The rat-catching staff of the department has from time to time visited places in the State where cases of plague among humans, or mortality among rats, have occurred. Some 306 lb. of rat poison were manufactured and distributed gratuitously to the local authorities and householders throughout the State. Three hundred and eighty-six vessels were furnished with "berthing certificates," and 86 vessels were fumigated at the port of Brisbane, in conformity with the plague regulations, and to meet the requirements of the health departments of the southern States.

Scarlet fever was strikingly less prevalent than in 1904, and there were no localised outbreaks. Only 69 cases are recorded for the State as against 986 cases for the corresponding period of last year. The incidence of typhoid fever still remains high, though only 220 cases were reported in the metropolitan area, as against 381 of last year. Five hundred and eighty-eight cases were recorded for the State in 1905, as compared with 777 of 1904.

Phthisis.—A most important advance during the year 1904 was the adoption by the Governor in Council of the recommendation for the compulsory notification of pulmonary consumption. The scheme for the prevention of human tuberculosis instituted by the department has worked well, and without the slightest friction. Rules for the prevention of tuberculosis were issued in circular form in October of last year. The transmission of tuberculosis by cow's milk is a source of infection of great importance, and Dr. Baxter-Tyrie has ably dealt with the question in his report. Staff Nurse Perry states that the patients visited by her, with the consent and approval of their medical attendants, have been mainly of the working class, who have, in the majority of cases, made every effort to carry out the advice tendered personally or in the circular leaflets issued by the department. Of 69 dwellings visited by Inspector Daniel, 52 were disinfected under his supervision or instructions. Boarding-houses and lodgings of kanakas have received especial attention.

Leprosy.—In the May number of the *Indian Medical Gazette*, a paper by Captain Rost, Indian Medical Service, appeared, in which he claims to have grown the leprosy bacillus and to have successfully treated the disease by inoculation with "Leprolin," and more recently literature has been published announcing that 29 cases of leprosy have been cured by this method. With a view of determining the curative properties claimed for the above mentioned preparation, three bottles (each equal to one dose) were received by the department in May last. A leper at the Lazaret at Stradbroke Island was injected with one dose at intervals of a fortnight. There was no reaction of pulse or temperature, and no external evidence of change in the tubercles. The man, however, considers himself very much better, and is certainly now much more active in his habits than previously. It was ascertained that practically the whole supply of Leprolin had been taken up by the Indian Government. It was found, however, that with a little additional apparatus the serum could be prepared by the Department of Public Health at a small cost. The Minister having approved of the recommendation in the matter, the material is now being manufactured at the Bacteriological Institute, and the result of the inoculation tests will be reported in due course. Nineteen cases of leprosy have been segregated, as compared with 12 of last year.

Plague.—By the examination of large numbers of rats from areas regarded as "dangerous," timely warning of the occurrence of plague infection was obtained, and when plague-infected rodents were found upon any premises the latter were systematically searched and cleared of their vermin. Consequent on the results obtained by Dr. Hunter, of Hongkong, the blood of a large number of cases was examined in the early stages of the disease for the *B. pestis*. In eight cases in which *B. pestis* were found in the blood of persons suffering from plague, four terminated fatally. It has been generally believed that *B. pestis* is found only in the blood shortly before death, but Hunter's results go to show that it is commonly found quite early, and, in most cases, including those of a mild type. It has been our experience that rats may suffer from plague and recover from the toxic effects of the *B. pestis*. There is also much evidence to show that the route of invasion of the plague bacillus is mainly through the alimentary channel. Bacteriological, cultural, feeding, and inoculation experiments conducted with such suspected material as grain, fodder, produce, articles of commerce, and the like, gave negative results as to the independent or prolonged existence of the *B. pestis* outside any living body. With regard to the efficacy of Yersin's serum, the experience of some six epidemics of plague in Queensland leads me to the opinion that it is a potent remedy when given early and in large doses. On May 4th a case of plague was discovered at Ipswich. Within a week six other cases occurred. Six of the seven patients were removed to the Colmslie (Brisbane) Plague Hospital, and all of them recovered. The remaining case, a boy, aged eight years, being too ill for removal at the time, was attended at his own home at Ipswich, and died there on May 9th. All the cases were bubonic in type, and were traced directly to a produce store, a dilapidated shed in which rats had been reported to be dying in large numbers a week before the outbreak. A large number of rats was destroyed in the Ipswich area, and every precaution promptly and energetically carried out. As a result, the outbreak was limited to these seven cases, and no further development has taken place. On May 16th a man died of septicæmic plague at Childers. Large numbers of rats were found dead in the town, and the epizoötic was severe. Circumstances seemed to indicate that infection was conveyed by fodder from Bundaberg. As a precautionary measure, the whole town was inspected, produce stores, etc., put in order, insanitary conditions remedied, and a special staff of men employed in rat-destruction. Similar precautions were carried out at Bundaberg, and no further cases occurred at Childers. On June 14th an official inquiry was held by me at the Municipal Chambers, Maryborough, into the circumstances of an outbreak of plague in that city. The outbreak was characterised by pneumonic manifestations, without distinct enlargement of the lymphatic glands, a type of plague which, fortunately, has been rare in Queensland. The members of one family (O'C.), consisting of seven children, residing with their father at Newtown, Maryborough, in a state of great poverty and neglect, were seized within a few days of each other with acute gastro-intestinal symptoms, which terminated in five of the cases with symptoms of pneumonia. The first case, a boy of 17 years, died on May 25th, and prior to his death he was attended at his own home by a local medical practitioner, who diagnosed the case as one of "pneumonia." On May 28th a neighbour of the above family (O'C.), a Mrs. E., who had visited and assisted in nursing the above case, sickened with headache, vomiting, etc., and died at her home on the 31st May. Four other children of the O'C. family, who had sickened with symptoms similar to the first case, were sent into the General Hospital by a medical practitioner on May 28th. On May 31st, a girl (E. O'C.), aged 7 years, and a boy (Jas. O'C.), 15 years, died at the General Hospital with symptoms of "broncho-pneumonia," and the medical superintendent signed the death certificates to that effect. On June 2nd another member of the O'C. family, a boy (R. O'C.), aged 10 years, and on June 3rd, a girl (M. O'C.), aged 3½ years, died at the hospital, both with symptoms of plague-pneumonia. Two staff nurses of the Maryborough General Hospital, who had attended the above patients from their admission to the wards, were taken ill with symptoms of pneumonia, and died on June 6th and 12th respectively. A third nurse, who had sickened, and was treated by the health officer of this department, recovered. There was a direct connection between all of the cases. Apparently, suspicion was not aroused until the coincident deaths of Mrs. E., at her residence, and the two children in the General Hospital on the one day, viz., May 31st. The nurses and inmates of the General Hospital were thus exposed to infection before the real nature of the disease had been discovered and the department communicated with. A rapid development took place, five deaths occurring at the hospital within six days. In all, ten cases occurred, of which eight terminated fatally. The measures taken for the suppression of the outbreak were preventive inoculation of doctors and nurses in attendance, together with the wearing of specially designed costumes and respirators; isolation of those sick or exposed to the infection; destruction, by burning, of the house with its contents occupied by the O'C. family; quarantine of the hospital premises; disinfection of clothes, disinfection of premises, including the General Hospital; cleansing operations, and the destruction and examination of rats caught in the town.

Food.—Some uniform system of control throughout the Commonwealth in regard to the adulteration of Food Acts is now generally admitted. No power. however, exists at present for the inauguration of Commonwealth legislation on the subject, apart from clause 37 of the Constitution, which gives the Federal Parliament power to make laws on "matters referred to it by the Parliament or Parliaments of any State or States." It is satisfactory to state that the large bulk of foodstuffs manufactured and retailed in Brisbane and in many other large centres in the State are on the whole wholesome and free from adulteration. The present difficulty is chiefly one of proper labelling in accordance with the provisions of the Act and Regulations. Proper and adequate labelling of foodstuffs would not only afford a permanent guarantee that the nature, substance, and quality of food and other products were in accordance with the demand and expectation of the purchaser, but would go far to protect the health and the interests of the public by directing attention to those products which are genuine and of good quality as against the unfair competition arising from the introduction and sale of imitations and of inferior and adulterated articles. With the single exception of the Brisbane Municipal Council, no other local authority throughout the State has appointed an analyst, or carries into execution the provisions of the Health Act relating to food. The lack of a qualified analyst on the score of expense, and the expense and uncertainty attaching to legal actions, as, *e.g.*, the experience of the Brisbane Municipal

Council in connection with the recent adulteration of milk prosecutions, doubtless prevent a local authority from taking action independently of the State department.

Disinfectants.—For some time past I have sought to have placed on the local market a reliable disinfectant at a reasonable price for household purposes, and to encourage householders and others to use disinfectants more freely than at present obtains in Brisbane—or, indeed, in Queensland. Under section 104 of the Health Act, the percentage of active ingredients contained in any disinfectant, deodoriser, germicide, preservative, antiseptic, sanitary powder, or sanitary fluid, must be legibly written or printed on the label. Most of the preparations manufactured by reputable English and local firms comply with this section of the Queensland statute. A great objection to many disinfectants is that their variations in germicidal efficiency stand in no sort of relation to so much of their chemical composition, as can be estimated by usual methods, and that conformity with chemical specifications, such, for instance, as are often prescribed for disinfectants derived from tar, give no guarantee of any proportional bactericidal effect. What is needed is that the absolute *germicidal* rather than the actual *chemical* value of every disinfectant should be guaranteed by the makers. This method avoids the necessity for the attempt under section 104 of "The Health Act of 1900" to express the disinfectant strength in terms of chemical constituents which give no trustworthy definition of it.

REPORT OF THE GOVERNMENT ANALYST.

In all 274 samples were received. One hundred and forty-seven samples of cream of tartar were received, nearly all being from shipments on importation; 119 samples contained 95 per cent. of hydrogen potassium tartrate, or over; of the remainder, 12 were over 94 per cent., 8 over 93 per cent, 2 over 92 per cent., and 1 contained 87 per cent. hydrogen potassium tartrate. One, made up locally, contained only 45 per cent. hydrogen potassium tartrate, while 4 samples sent in as "cream of tartar substitute" were found to be superphosphate of lime.

Several samples of liquor were taken in accordance with the Health Act. A sample of schnapps from a hotel in South Brisbane was found to be adulterated with 280 grains of sulphuric acid per gallon. A sample of rum from the same hotel contained 15 per cent. of added water, and nicotine was also found present. Three samples of liquor from another hotel were found to contain nicotine.

Oils.—Twenty samples of "salad" oil were received. Four were genuine olive oil, eight were cotton-seed oil, six arachis oil, one a mixture of poppy and sesame oils, and one a mixture of arachis and sesame oils. One sample, marked Lucca oil, was entirely cotton-seed oil.

Milk.—Two samples of milk were examined, and each contained about 15 per cent. added water. Three samples of condensed milk were found to be of good quality.

Tea.—Three samples submitted from the Customs, as "suspected," were found to be adulterated with lie tea.

Oatmeal.—One sample of oatmeal was found to contain ·157 per cent. As_2O_3. This oatmeal had caused poisoning, but no satisfactory explanation was obtained as to how the arsenic got into the meal.

Vinegar.—Four samples of vinegar were found to be acetic acid diluted with water. The samples contained 2·9, 3·4, and 2·9 per cent. acetic acid.

Cordials.—One sample of raspberry cordial was genuine, but other—two raspberry and one strawberry—cordials were solutions of sugar flavoured with essences, and coloured with coal tar dyes.

Jam.—One sample of quince jam had one grain of salicylic acid per lb.

Confectionery.—Four samples of coloured sweets were coloured with coal tar dyes, while one sample of "milk kisses," supposed to contain paraffin, was found to be free from non-edible fat.

Essences.—Three samples of essence of lemon were genuine, though two were very dilute. Two samples marked essence of lemon were fictitious. Two samples of essence of vanilla were genuine, one was fictitious.

Sauce.—Three samples of sauce were free from preservative, one had 0·2 grains of salicylic acid per lb., while a tomato sauce was not genuine, and had 2·0 grains of salicylic acid per lb.

Custard Powder.—One sample of custard powder was maize starch, coloured with a coal tar dye, and had a little artificial flavouring added.

Pepper.—Two samples were mixtures of pepper and starch.

Mustard.—One sample was a mixture of starch and mustard, while another contained starch, pepper, and mustard, and was coloured with turmeric.

Tinned Fish.—Four samples of bloater paste were analysed. One was free from starch and preservatives, two contained starch but no preservative, and one contained starch and boric acid. One sample of anchovy paste was fish paste and starch, free from preservatives. One sample of salmon and shrimp paste contained fish paste, starch, and boric acid.

Tinned Meat.—One sample of luncheon beef was good. A sample of "turkey and ham" was meat paste, with starch, boric acid and alum. Two samples of ham and tongue contained starch and boric acid, in addition to the meat paste.

PREVENTION OF CONSUMPTION.—REPORT OF DR. BAXTER-TYRIE.

Reports have been prepared and submitted covering the work done by the staff nurse and disinfecting officer. The information that has been acquired, *pari passu*, with the progress of the work emphasises the great and urgent need that existed for the institution of these regulations. Case after case supported the conclusion that many lives have been sacrificed for want of a little knowledge of the dangers of intimate association with a tubercular patient when no precautions to avoid infection are taken. Many consumptives fall victims to their own sputum through ignorance of the danger they run in continually inhabiting the same premises. It is gratifying to note the thorough earnestness displayed by patients and relations alike in following the instructions of the nurse and disinfecting officer. The work is not limited to the prevention of the spread of the disease, but valuable help is being extended to those already in the grasp of the malady. The undertaking is a work which will require years before it can be appraised at its true value. But it must be evident that the good is immediate, although it may be decades before the slight but significant decrease in the Registrar-General's annual return of the deaths due to consumption proclaims that material progress has been made in combating the "white man's scourge."

Transmission of Tuberculosis by Cow's Milk.—Next to the lungs, the alimentary tract is the most important channel of infection. This infection is generally conveyed in the milk from tubercular cows. It is chiefly infants and young children that are affected. This source of infection is of great importance in a country such as this, where a large proportion of the infants are bottle-fed. Proof of the possibility of experimentally infecting animals by milk from tuberculous cows was furnished by Gerlach long before the discovery of the tubercle bacillus by Koch. Each succeeding investigator has confirmed his observation that "intestinal infection in children is common, and tubercular ulceration of the intestine and tubercle of the glands connected with the intestinal tract are of frequent occurrence in infants." *No infant is born tubercular.* In 127 cases of tuberculosis examined by Woodhead, intestinal ulceration was found in 43; in 100 cases, or nearly 79 per cent. of the whole, the intestinal glands were in some stage or other of tubercular degeneration. It is, therefore, patent that no scheme for the prevention of human tuberculosis can be complete that does not take cognisance of the risks that children run of infection by milk from tubercular cows. No dairyman should be allowed to supply milk for consumption from cows which have not been tested by tuberculin. In order to ascertain what measures were taken in and around Brisbane to safeguard the children by testing dairy cattle by tuberculin, the following inquiries were forwarded to the Agricultural Department:—1. The number of cows in the metropolitan area that are used for the supply of milk? 2. The number of cows tested for tuberculosis by tuberculin? 3. The number of cows condemned for tuberculosis? The following reply was received:—"1. In December, 1904, there were 3769 cows in milk, exclusive of dry cows, in the metropolitan area. 2. The tuberculin test was not generally applied to cows because the owner's consent had first to be obtained. In 1900 and 1901, 59 cows were submitted to the test. 3. Since 1900, 14 tubercular cows have been condemned; 2 have been condemned for tubercular mammitis, and 59 for diseased lymphatic glands. Some of these were undoubtedly tubercular, but definite information is not obtainable." It will thus be seen that practically no precautions are taken, inasmuch as routine testing by tuberculin is evidently not practised, and that cattle are only condemned as tubercular when gross lesions of the udder or other parts manifest themselves. The appalling mortality of infants is now receiving attention in Parliament. It is certain that many lives would be saved if it were made compulsory that every cow supplying milk be regularly tested with tuberculin, and that dairy cattle be frequently and rigidly inspected for tuberculosis. Prior to the passing of "The Dairy Produce Act of 1904" there was no provision for compelling owners of dairy cattle to submit their animals to the tuberculin test. Under the Dairy Act, if section 26, subsection 6, were put in force, periodic testing could be made compulsory. Therefore, it is only necessary to enforce the existing regulation to ensure the protection of children from infection by milk from tubercular cattle.

Report of Staff Nurse Perry.—I commenced duty in November, and have visited since that date every case of tuberculosis notified to the department, except a few cases where the practitioner in attendance preferred to personally undertake the charge of supervision. The patients have been mainly of the working class, and in the majority of cases the condition of the premises, the mode of living, and the utter absence of preventive measures indicated the urgent necessity of explaining to the patients and those in contact the danger to which they were constantly exposing themselves. Nothing was more noticeable than the immediate improvement in the surroundings of the patient after a visit or two had been paid, as evidenced by the efforts made to carry out the rules issued in the leaflets. In several instances three or four of the family were occupying the same bedroom, but after instructions being given this was rectified. The patients are extremely grateful for the interest displayed in their welfare, and are most anxious to carry out all instructions and any suggestions which I may make. The patients in their homes use a receptacle containing some disinfectant, and those who are strong enough to go out of doors carry a flask, or use a paper bag, or a piece of rag, which is burnt after their return home. If they should use a handkerchief, this is placed in boiling water or a solution of disinfectant before becoming dry. These patients are made to realise the danger of expectoration in the streets. Some of the patients who have not got well-ventilated rooms live on the verandah for the major portion of their time. Attendants to patients are instructed always to be careful to wash their hands after attending to patients, never to take food out of the same vessel, and to destroy, by burning, food which has been left; also, boil all cups, plates, spoons, etc., used by the patient; to avoid raising dust in bedrooms, and to assist the patient in carrying out instructions as far as possible. Shortly after the inception of this scheme, it was seen that some more efficient means would have to be adopted in connection with the hospitals. The medical superintendents were consulted and a system of card (example approved) of notifications adopted. Much of the success achieved in carrying out the work is due to the courtesy of the medical practitioners, who have, without exception, done their utmost to further my work. From November, 1904, to June, 1905, 90 cases were reported, 160 visits have been paid, and rules distributed in every case. Three patients have been sent to Dunwich, 17 to the Dalby Sanatorium, and 22 deaths have occurred.

Report of Disinfecting Officer.—Of the cases reported, the premises of 69 were inspected, I was unable to find 6, and 15 were reported after death. The premises, with one or two exceptions, were found to be in a satisfactory condition, and where any defective drainage or dirty or insanitary conditions were found, the local authority concerned was notified, and steps taken to have the premises put in a more sanitary condition. The majority of the premises were disinfected by spraying the infected room or rooms and contents with a 10 per cent. solution of formaldehyde, and afterwards vapourising formaldehyde tabloids—2 oz. of tabloids to every 1000 cubic feet of space, the room being closed up for 12 hours. Anything that could not be disinfected was destroyed by fire. In one instance the whole contents of the room were removed to Wattlebrae Hospital and disinfected in the "Reck disinfector," the cost being paid by the relatives of the patient.

The Health of Hobart.

Abstract of the Half-yearly Report of Dr. Gerard Smith, City Health Officer.

The half-year ending June 30th, 1905, has shown a less incidence of infectious disease than the corresponding period of 1904. All cases of infectious disease have been sporadic, there has been no grouping of cases in definite districts, and no assignable cause common to all cases of enteric fever has been discoverable. I have made an approximate analysis of the drinking water in such cases of enteric fever as I have thought it necessary to do so (testing for free and fixed ammonia, nitrites and nitrates, and chlorine), but have found no instance of contamination by sewage.

Disposal of Nightsoil.—Considerable difficulty has been experienced in carrying out necessary sanitary work owing to this being a transitional period between the old and new methods of disposal of nightsoil, etc. The double-pan system of disposal of nightsoil has been carried out in a satisfactory manner, and very few complaints of its inefficiency have been received. Where any fault has been found, it has appeared to be chiefly due to carelessness on the part of the householders.

Insanitary Dwellings and Overcrowding.—The Health and Sanitary Committee have visited at regular intervals batches of the dwellings of the poor in various parts of the city. During the six months only three dwellings have been condemned, making 40 condemned since the early part of 1904, and several have been voluntarily demolished. Sixteen dwellings have been ordered to be put in thorough repair during the six months, and the committee is still actively engaged in inspecting insanitary dwellings, a considerable number of which will probably have to be condemned. The result of the demolition of these insanitary dwellings has been the overcrowding of those dwellings still remaining. Undoubtedly the need of dwellings for poorer classes, especially for large families of children, is at present the most important feature of the sanitary needs of the city. The number of overcrowded dwellings is small, yet these, scattered as they are in small batches over the city, act as food for the spread of infectious disease should any epidemic arise. The sleeping room accommodation in the dwellings of the poor is very deficient in the large majority of dwelling-houses which contain three rooms (and of these there are many in the city); they usually have only two rooms available for sleeping in, and the average cubic air space in the sleeping rooms is seriously deficient in almost every one of these small dwellings. A large number of these dwellings are very old, being built upon the bare ground, and having no ventilation to the floors they are therefore often very damp.

Disposal of Refuse.—The facts that the existing tips for general refuse are now becoming filled up, and that immediate need is arising for the provision of fresh means for the disposal of refuse, induces me to again recommend that the question of providing an efficient destructor should be taken into consideration. This will become an absolute necessity as the available areas for tips become exhausted, and it is desirable that the imperfect method of using tips should be abandoned as soon as possible.

Inspections.—The cowsheds and dairies and premises of purveyors of milk have been kept under observation and inspected from time to time. Their general condition is much improved since 1904, and all the alterations required by the Local Board of Health have been carried out. The abattoirs have been inspected at monthly intervals. I am not satisfied with the methods of drainage of blood, etc., or with the cesspit provision. The manager continues to do all he can to make the best of an unsatisfactory situation. He has from time to time called my attention to any meat suspected of being unfit for food, and I have always found myself in agreement with his decision in such cases. The various noxious trade premises continue to be properly conducted. I have formulated by-laws for bakehouses, which I hope to see soon passed by the Municipal Council, in order that these premises may be kept up to date.

Population, Birth and Death Rates.—The population is given as 24,654. The infant mortality has been less by nearly one-half than that of the same period of 1904.

INFECTIOUS DISEASES.

Tuberculosis in different forms contributed 24 deaths, or 13·5 per cent. of the total. During the same period in 1904 the rate was 16·46.

Enteric Fever.—There were 30 cases notified. Of these several were notified as "suspected" cases, and subsequently proved to have been influenza or some form of low fever not infectious in nature, 2 cases in which the origin could not have been in the city, and owing to these conditions the number of indubitable cases of typhoid fever may be taken as under 20. The deaths were 6, that is, 20 per cent. of the cases reported, or 2·43 per 1000 of the population. The number of males attacked were 18, females 12. In every case of enteric fever the dwellings have been inspected and the rooms and bedding disinfected by the department. This duty has not, as formerly, been left to the tenants of the houses. In cases of poverty the expense has been borne by the department.

Scarlet Fever. — Two cases were reported, one of which subsequently proved not to be of the disease, and there were no deaths.

Diphtheria.—One case was notified, and in this the bacteriological test did not give positive results.

Puerperal Fever.—One case was notified. Full investigation was made into the circumstances, and disinfection of room and articles used, and destruction of such as could not be disinfected was carried out. The midwife who attended the case was suspended from attending other cases for a period of three months. In connection with the prevention of infectious diseases, I am again obliged to remark that the provision of an infectious diseases hospital is the most urgent need for the city. Fortunately, scarlet fever and diphtheria, the two diseases for the isolation of which such a hospital is required, have been recently rare in the city, but at any time these may break out in the overcrowded batches of dwellings, and cases from country districts may be sent into the city for medical treatment. Experience shows that these diseases, scarlet fever especially, are liable to periodic increase, and it may be expected that at some early date there will arise urgent need for a hospital for infectious diseases.

Protection of Infant Life.—The Municipal Council has taken steps to ascertain the names of persons taking in infants to board for payment and having these registered, so as to be under regular inspection. I recommend, however, that the law affecting such cases should be modified in such a way that persons taking one such infant shall be registered, the law as it stands permitting one infant to be taken in without registration.

Analysis of Foods and Drugs.—This work, which was formerly carried out by the Government Analyst for the Local Board of Health, cannot now be so performed, on account of changes in his department, unless special arrangements for defraying the cost of the work are made by the board. The work has therefore been entirely neglected, and I must strongly recommend that steps be taken to secure the services of the Government Analyst or some other competent expert to carry out these analyses.

Recommendations.—The modifying of notifications of infectious disease, so that "suspected" cases may be omitted from statistics until diagnoiss has been confirmed. 2. The notifying of householders to exercise more care in the use of earth or of ashes in nightsoil pans. 3. The provision of fitting dwelling-houses for the poorer classes. 4. The provision of a destructor for refuse. 5. The provision of a complete disinfecting apparatus for bedding, etc. 6. The provision of an infectious diseases hospital. 7. The appointment of an analyst for the department.

Insanity in Australasia.

QUEENSLAND.

THE report of the Inspector of Hospitals for the Insane for 1904 states that the number of patients in the State institutions for the insane on December 31st, 1904, was 1882, of whom 1150 were males and 732 females. During the year the number of patients increased by 30—16 males and 14 females; but the average increase each year for the last nine years has been 55. At the end of 1904, 3·60 out of every 1000 of the estimated State population of 521,655 were under care as insane. This proportion is the same as last year. During the year 2222 patients—1394 males and 826 females—were under treatment, and the average number daily resident in the hospitals for the insane was 1864—1143 males and 721 females.

ADMISSIONS.—289 patients—186 males and 103 females—were admitted. In 1903 the number was 337—222 males and 115 females; so that there was a decrease of 36 males and 12 females as compared with the previous year. In 1899, 364 cases were admitted, but a yearly shrinkage of admissions has been going on ever since. Last year's reduction of 48 admissions is remarkable. Thirty fewer patients were admitted at Goodna, and 18 at Toowoomba. Forty-three of the admissions had been under care before. The average time which had elapsed from their discharge to their readmission was 4½ years, but 11 of them had, unfortunately, relapsed within a year from their discharge. One hundred and fifty-three of the admissions, or nearly 53 per cent., were natives of Great Britain and Ireland; and 96, or 33 per cent., were Australians. Nine patients were received at Goodna, by order of the Minister, under the criminal clauses of the Insanity Act. One was found insane on trial, while the rest came from the prisons where they were serving sentences—1 for murder, 1 for robbery, and the others for vagrancy, drunkenness, and obscenity. Four of these latter patients recovered, and were discharged during the year. The proportion of patients admitted to the hospitals for the insane per 10,000 of the population has again fallen—from 6·53 in 1903 to 5·54 last year. This is lower than it has been since 1897, when only 5·15 per 10,000 were admitted. In 1899 the proportion suddenly rose to 7·10 per 10,000, and ever since it has been falling.

CAUSES.—Excess of alcohol is ascribed as being a cause in only 10 per cent. This is much less than the usual proportion. No fewer than forty-eight of the cases admitted were due to avoidable causes—namely, intemperance in drink, venereal diseases, self-abuse, and opium-smoking. Nearly one-seventh of the patients showed distinct hereditary tendency.

DISCHARGES.—There were discharged 161 patients—106 males and 55 females. Of these, 125 were deemed recovered, 34 relieved, and two not improved. The proportion of recoveries to admissions was 41·56 per cent., and of discharges relieved 11·76 per cent., giving a total of 53·42 per cent. These results may be considered fairly satisfactory, seeing that the hospitals accept all forms of insanity, from hopeless idiocy to the incurable weak-mindedness of old age; and also that the cases are already sifted in the reception-houses, so that of 198 patients admitted to them, 40 were discharged from them, and only the balance was sent on to the hospitals.

DEATHS.—There were 94 deaths—64 of males and 30 of females. Tubercle caused 22 deaths—a larger number than any other disease. Of the patients who died from it only five showed indications of tubercle when admitted. There were four deaths from violence.

LEAVE OF ABSENCE.—At the beginning of the year 26 patients were on leave; during the year leave of absence was granted to 103 others. Of the total, 58 were discharged, 34 returned to the hospitals, 1 died while on leave, and 36 remained with their friends when the year ended.

EXPENDITURE.—The maintenance of the hospitals for the insane during 1904 cost £42,655 3s 8d, and the reception-houses cost £2219 8s 7d, a total of £44,875 2s 3d. This is £5105 15s 7d less than was spent in 1903.

ACCOMMODATION.—In February, 1904, a new ward for males was opened at Toowoomba, and 60 male patients were transferred to it from Goodna. The accommodation for female patients is at present shorter than that for males, but the extension and alteration of the oldest female ward at Goodna will provide room for another year's increase.

HOSPITAL FOR THE INSANE, IPSWICH.—It holds 140 quiet, chronic, healthy male patients, who are not in need of constant medical attendance. They are regularly visited by the medical officers from Goodna, and the Government Medical Officer at Ipswich is summoned in emergency.

HOSPITAL FOR THE INSANE, TOOWOOMBA.—In the beginning of the year Dr. Edwin Roberts tendered his resignation as official visitor, a position he had worthily held since the opening of the institution. He was succeeded by Dr. E. A. Falkner.

SOUTH AUSTRALIA.

The annual report of Dr. W. L. Cleland, Medical Superintendent of the Hospital for the Insane at Parkside, Adelaide, states that the number of insane persons under official cognisance on December 31st, 1904, numbered 975, an increase of 13 persons as compared with the corresponding date for 1903. In 1903 there was a decrease in the number of both male and female patients; in 1904 the female patients have remained stationary, whilst the male patients have increased by 13. The total persons under care during the year was 1219, whilst for 1903 it was 1202. The rate per 1000 of the total insane to the population may be said to be practically stationary for the past eight years.

ADMISSIONS.—In asylum, December 31st, 1903, there were 541 males, 421 females, total 962. Cases admitted: 145 males, 112 females, total 257. Total cases under care during the year: 686 males, 533 females, total 1219. Cases discharged—Recovered, 74 males, 56 females, total 130; not improved, 1 male, 6 females, total 7. Died, 57 males, 50 females, total 107. Total cases discharged and died during the year, 132 males, 112 females, total 244. Remaining in asylum December 31st, 1904, 554 males, 421 females, total 975. Average number resident during the year, 553 males, 421 females, total 974. The rate per 10,000 of admissions to population is high. On the male side it is the highest since 1899, and on the female side since 1893.

Discharges.—The recoveries calculated on the year's admissions was 51·7 per cent. for males and 49·1 per cent. for females. The proportion of recoveries on those admitted in 1903 was, at the end of 1904, 42·6 per cent. for both sexes. The recoveries of those admitted during 1904 was 32 per cent., a satisfactory percentage considering that a large number of these admissions had not had time to recover. A feature of the discharges during 1904 is the large number of patients who recovered before they had been three months in the asylum, making a total of 63 as compared with 48 in 1903, showing that the mental disturbance was more of a functional nature than a disease. Another feature is the comparatively large number of discharges of those who had been in the asylum two years and more, whose prospects of recovery had diminished, namely, 17, as compared with eight in 1903.

Deaths.—By the end of 1904 the number of deaths out of the 206 admissions in 1903 was 58; whilst the number of the 204 admissions in 1902 was 45. The percentages being—for 1903, males 29, females 27; the percentages for 1902 being—males 23, females 19; whilst in 1904 the percentages of deaths on the 245 admissions of that year was—males 7·7, females 11.

Expenditure.—The expenditure for 1904 was higher than that for 1903 by £546, the daily average number of patients in the institution being eight less. This was chiefly caused by an increased expenditure of over £400 on provisions. In 1904, with an average of 974, the cost was £14,334. The total daily average cost for each patient was 1s 6½d. The fees for maintenance received makes the cost of each patient in 1903 and 1904 almost identical.

The Staff.—During the year Dr. Macfarlane, the Assistant Medical Officer, resigned his position, as he was desirous of visiting England. Dr. Cumpston was appointed to fill the vacancy.

New Zealand.

In the annual report of the Hospitals for the Insane in New Zealand the Inspector-General of Hospitals, Dr. D. MacGregor, shows that the proportion of the insane to the population has steadily risen from 1·97 per 1000, or 1 in 509 of the total population in 1876, to 3·51 per 1000, or 1 in 285 in 1904. The proportion of admissions to asylums in the year 1878 was 0·83 per 1000 of population, but this has gradually lessened with slight fluctuations, to 0·68 per 1000 in 1904. Out of the total number (580) admitted to the asylums during 1904, 91 had been cared for privately for more than a year, while practically only one-half of the admissions were within three months of the onset of the malady, so that the proportion of 1 in 285 underestimates the true position.

In a table giving the causes of insanity, 106 of the 580 cases admitted during the year are described as congenital and hereditary, 66 are attributed to alcoholism, 48 to previous attack, 29 to senility, 33 to mental worry, 23 to epilepsy, 37 "unknown." Overstudy is assigned as a cause of the mental disease in five persons, religious excitement in 12, ill-health in 16, injury in 18, jealousy in 1, and love troubles in 3. Alcoholism is alleged to be responsible for only a little over one-ninth of the total number of cases. Dr. F. Truby King, the superintendent of Seacliff Asylum, points out that the assigning of a particular cause for the insanity of each patient admitted is always extremely unsatisfactory, owing to the causation being practically always multiple. The necessity of selecting for purposes of statistical classification a single factor as the most prominent results in a somewhat arbitrary choice of causes, which varies greatly in different institutions, according to the weight attached by different individuals.

In commenting on the undue proportion of sufferers from mental disease in New Zealand, Dr. MacGregor says the intelligent consideration of this complex problem does not begin with the establishment of mental hospitals, which are, in truth, the monuments of failure. It should begin with prophylaxis, and prophylaxis should begin before birth. It would be too great an interference with the liberty of the subject to forbid the marriage of unsuitable persons, and to preach the doctrine of heredity and stress is to speak to the deaf; but with a State insurance system (suggestive of that which obtains in Germany, though wider in scope), one may, on the principle that the issue of such unions may become chargeable to the State, fix a proportionately higher premium, and thus enlighten the contracting parties by the most forcible of arguments.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, City Health Officer, reports:—Deaths of residents in the district of Sydney and suburbs for October, 1905, exclusive of patients in Gladesville and Callan Park Hospitals for the Insane, numbered 429. This figure corresponds to an annual death-rate of 9·74 per 1000 of the estimated mean population for the year, and, when corrected for the metropolitan proportion of the deaths in hospitals for the insane and benevolent asylums for the aged and infirm throughout New South Wales, 10·52 per 1000. Diarrhœal disease accounted for 16 deaths, of which 15 were certified as due to enteritis and one to diarrhœa. This total is well below the quinquennial average (26) of deaths from these causes during October. The group of infectious diseases other than diarrhœa caused 21 deaths, of which five were attributed to influenza, 5 to diphtheria, 3 to typhoid fever, 4 to puerperal fever, and one to each of the following disorders:—Measles, scarlet fever, cerebro-spinal fever and erysipelas. Phthisis caused 26 deaths, or 15 less than the average number for October in previous years. Bright's disease caused 25 deaths, cancer in its various forms 31 deaths, and diseases of the heart and blood-vessels 67 deaths. Respiratory diseases caused about the average mortality experienced in previous Octobers. Bronchitis caused 19 deaths, and pneumonia 37. Deaths of infants under one year of age numbered 94, which is equal to an infantile mortality rate of 87 per 1000 births. The chief causes numerically of infantile deaths were:—Prematurity 29, developmental diseases 24, respiratory diseases 12, enteritis 11, and convulsions 5. Notified attacks of the notifiable infectious diseases numbered 260, of which 175 were due to scarlet fever, 53 to diphtheria, and 32 to typhoid fever. In the case of each disease the number of attacks was greater than the quinquennial average for the month.

Oysters Contaminated with Sewage.—Dr. F. Tidswell, Principal Assistant Medical Officer to the Government, reports that in the course of his professional duties he had examined oysters taken out of

Folly Bay, where the effluents of the local sewage works empty, and in them he found distinct evidences of sewage contamination. The septic tank apparently fails to check the activity of the microbe, and in Dr. Tidswell's opinion oysters collected from the vicinity of the sewer-beds are not fit for human consumption.

Queensland.

Bubonic Plague.—Dr. Burnett Ham, Commissioner of Public Health, reports for week ending October 21st, 1905:—Two cases of plague occurred at Townsville during the week, the particulars of which are as follow:—October 15th: F., an aboriginal, employed as a yardman in the city; admitted to hospital, October 15th. October 19th: M.H., a young woman, employed at a hotel in the city; admitted to hospital October 19th; died 21st idem. Last plague-infected rat reported from Townsville on October 6th For week ending October 28th: Townsville—No case of plague occurred at Townsville during the week. F., an aboriginal, reported October 15th, and mentioned in Bulletin No. 34, died on the 21st inst. No cases of plague are now under treatment in any part of the State. *Note.*—Unless another case of plague should occur in the State, or a plague-infected rodent be found, no further bulletins will be issued.

Tasmania.

Vital Statistics.—According to the Chief Medical Officer's statistics, the estimated population of Tasmania has ranged from 154,426 in 1895 to 178,826 in 1904. For the first six months of 1905, January 1 to June 30, inclusive, the total was estimated at 179,445. For the first six months of the current year the birth-rate was 13·94 per cent. The rate has varied from 31·02 in 1895 to 29·59 in 1904; the smallest proportions being in 1898 and 1899, when it fell to 27·50 and 27·39. Deaths under one year of age ranged from 391 in 1895 to 480 in 1904; the average yearly mortality being 456. For the first six months of the current year the total was 212. This shows a favourable decrease of infant mortality. Deaths at all ages totalled 1811 in 1895 to 1969 in 1904, the yearly average number being 1988, and the average rate 11·76. For the first six months of 1905 the total was 858, and the average 4·78. Taking city births and deaths, the figures show that with a population of 24,703, Hobart averaged 683·2 births, or 27·65 per 1000 persons, for the ten years under notice, and the death-rate per 1000 persons was 14·32. Launceston, with a population of 17,896, averaged 539·9 births, or 30·17 per 1000 persons for the ten years, and the death-rate per 1000 persons was 16·15. In the country districts, with an average population of 126,421, the births averaged 3628·4 per annum, the rate being 28·70 per 1000 persons. The deaths averaged 1345·5, or 10·64 per 1000. For the first six months of the current year the births numbered 1832, average 13·42, and the deaths 581, average 4·25. The increase in country population rose from 126,421 to 136,458.

Mr. BRUCK begs to notify the profession that Mr. Miles does not represent him any longer, therefore all orders intended for Mr. Bruck should be sent direct to him. Mr. Bruck has no travelling salesmen, and as he is under a nominal rent only, he can afford to sell the very best quality of everything at lowest possible prices.

OBITUARY.

We regret to record the death of Dr. F. W. Newcombe, which occurred in India last month. Deceased, who was a native of Warrnambool, Victoria, left there three years ago to enter on medical missionary work in Natal, and he afterwards went to India, where he continued in the mission field until his death, which occurred at Darjeeling. He had been suffering from malaria, but death was quite unexpected. He was 34 years of age, and leaves a young widow, who accompanied him to India.

Dr. L. S. O'Flaherty, who for several years was in practice at Hindmarsh, S.A., died at Kookynie, W.A., from pneumonia, after a few weeks' illness.

HOSPITAL INTELLIGENCE.

Hobart Hospital.—At the meeting of the Hospital Board held last month the salary abstracts and accounts for the month of September, amounting in all to £643 0s 6d, were passed for payment. During the month 162 patients have been treated in the hospital; of this number 81 were discharged and 9 died, leaving 34 males and 38 females under treatment on October 1st. The daily average number of occupied beds was 69, as compared with 87 in September last year, and 79 in 1903. In the out-patients' department 82 new cases were treated, casualties 22, total attendances 426. The grounds, buildings, wards, etc., have been regularly inspected, and several items of repairs have been carried out during the month. The quality of the provisions supplied by the various contractors has been carefully examined from time to time, and found satisfactory. On the 15th ultimo, Dr. Colquhoun (of Dunedin) paid a visit to the hospital, and after a thorough inspection expressed the opinion that the Hobart Hospital and its appointments compared most favourably with kindred institutions in the other colonies.

Kapunda Hospital, S.A.—At the annual meeting of subscribers to the Kapunda Hospital the retiring members were re-elected, as also were the auditors. The report and balance-sheet, which were adopted, showed for the year ending September 1st, 1905, that 184 patients were admitted and 168 discharged. There were 12 deaths, accounted for by the fact that many patients were brought to the hospital in a dying condition. There were now 23 patients in the hospital, besides a large number of out-patients. Mr. H. Dutton presented an operating table. The chairman remarked that as only one-third of the patients paid anything toward maintenance, the board would like to see the list of donations largely increased. The receipts for the year were £1540, including the Government grant-in-aid, £500; while the disbursements were for maintenance, salaries, medical officers, drugs, and sundries, £1390, showing a surplus of about £150. This institution is one of the most important out of Adelaide, as it is up to date in all its appliances and methods.

St. Vincent's Hospital, Melbourne.—The sum of £7600 has been subscribed by the public to St. Vincent's Hospital, and the authorities are thus entitled to claim the Premier's offer of £1500. The cost of the new hospital, including the laundry block, is about £36,000. The public up to date has contributed £23,000, so the authorities are to be congratulated on the success they have achieved during the past few years. On November 5th a large gathering was present at the opening of the new building. The ceremony was performed by the Governor, Sir Reg. Talbot, who said he had the deepest sympathy with all movements for the establishment of hospitals, sufficient for the requirements of our suffering brothers and sisters. None coming to Victoria could but be struck with the great liberality with which the charitable institutions of the State were supported. He wished success to this institution, and had much pleasure in declaring it open. Mr. Bent said he felt that the money which he as Treasurer had given to this institution had been well spent. Thousands of people who benefited by these institutions did not contribute anything. If the contributions were fairly apportioned, the people who managed institutions like these would not be burdened with the financial question as well as the philanthropic one, and there would be no necessity to resort to bazaars and other expedients to raise the necessary money. The collection at the opening of the hospital yielded over £2000.

Wagga Hospital, N.S.W.—Dr. Millard, of the Public Health Department, in his report on the Wagga Hospital, considers the buildings and equipment not at all adequate to the satisfactory fulfilment of the functions of the institution. The buildings were mostly erected 50 years ago, and are, in a great measure, unfit for use as a hospital. He states it would be better to build an entirely new hospital on a new site. He approves of a site at the corner of Albury and Edward streets.

Marrickville Cottage Hospital, N.S.W.—The annual street collection arranged by the committee of the Marrickville Cottage Hospital took place on November 4th. The total amount realised was £84 6s 6d. This is a few pounds short of last year's collection, which was £90, but when it is taken into consideration that there have been several outdoor collections in the district lately, the amount received is quite up to expectations.

Royal Alexandra Hospital for Children, Sydney.—A garden fête was held at Kambala, Bellevue Hill, last month in aid of the Children's Hospital. The promoters of the fête—the past and present pupils of Kambala—were highly gratified at the successful results of their efforts, about £50 being realised. This sum will enable them not only to pay the promised £100 to furnish a ward in the new hospital, but also to keep a cot in the same ward for one year.

Children's Hospital, Adelaide.—From the twenty-ninth annual report of this institution for the year ended September 30th, 1905, we learn that there were 650 in-patients under treatment, and the daily average of occupied cots was 67. There were 59 patients at the Queen Victoria Convalescent Home, and the average of occupied cots was 11. In the number of infectious cases there was a remarkable and suggestive reduction, there being only 20 cases of enteric fever and 35 of diphtheria. These figures are the lowest that have been reported in any year since the infectious wards were opened. Of the 650 cases treated at the hospital 414 were discharged as cured, 104 relieved, 21 were unrelieved, and there were 41 deaths. The principal causes of death were:—Tubercular meningitis, 9; morbus cordis, 5; diphtheria, 3. No case of enteric fever had a fatal termination. On September 30th, 1905, there were 70 patients in the hospital, and 12 at the convalescent home, total 82. The total number of operations was 566, of which 313 were cases of out-patients. There were besides these about 100 dental operations. The total number of new cases treated at the outdoor department was 1269. The number of individual attendances at the dispensary was 7685, the daily average being over 24. These returns show a decrease of about 20 per cent. as compared with the previous year, which may be attributed to the absence of any epidemic among children, and the generally healthy conditions of the community. The board of management has devoted special attention to the Queen Victoria Convalescent Home during the year and effected improvements which will greatly increase its efficiency. The chief of these is the erection of a spacious "sun room," connected with the ward, which has already proved of great advantage as well as enjoyment to the convalescents during the inclement days of the Mount Lofty winter. A large underground tank and the erection of a windmill pump have also secured an abundant water supply, which for such an establishment is a vital necessity. The outlay thus incurred was upward of £300, and the total expenditure at the home, £873 10s 4d. During the past 12 months the X-ray apparatus has been in constant use. The total number of examinations for which it has been employed is 123, and in a large proportion of these radiographs were taken. The additional appliances that were recommended last year were obtained at a comparatively small cost, and the electric current that serves other purposes in the hospital has been rendered available for the general medical, electrical and surgical treatment required by some of the patients. The bacteriological department has continued its useful investigations under the management of Dr. Morgan, the hon. bacteriologist, and Dr. Gunson, the assistant bacteriologist. The following analysis shows the work done during the year:—

	For Children's Hospital.	For medical men and others.
Swabs and culture for diphtheria ..	296	107
Widal's test for typhoid fever ..	44	41
Sputum, etc., for tubercle ..	4	313
Other material, as pus, etc. ..	22	14
Pathological sections and examinations	4	42

The total income from all sources amounted to £5407 19s 8d and the total expenditure to £4987 17s 8d. The juvenile collections and contributions amounted to the total of £1088, which is slightly in excess of last year's extraordinary record. Legacies have been received from the estates of Mr. T. Berwick, of Mount Barker (£50); Mr. J. Meikan, of Stockwell (£22 10s); Mrs. Anderson, formerly of this State, but lately of Hamburg, Germany (£97 18s 4d); and Mr. John Darling (£100); the total being £270 8s 4d.

Cooma Hospital, N.S.W.—The official opening of the recent additions to the Cooma Hospital took place last month. The president said that the hospital was now in the 46th year of its existence. During the past seven years the indoor patients had increased from 39 to 127, and the outdoor from 17 to 190. Ten years ago a mortuary was erected at a cost of £75, and eight years ago a fever ward was built at a cost of £250. Two new private wards, increased accommodation for nurses, laundry, bathroom and large kitchen have now been added at a cost of £700. One of the new wards had been furnished by the Rev. R. M. Turnbull. Mr. G. T. C. Miller formally declared the ward open, and £40 was collected at the meeting. The annual ball in aid of the hospital, held in the evening, yielded a further sum of £90.

Armidale Hospital, N.S.W.—The Committee have decided to erect an isolation ward, to be known as the Harris Ward, in memory of the late William Marshall Harris, who was long their honorary treasurer. One hundred pounds has been handed to the committee from the subscribers to a fund to perpetuate the memory of Mr. Harris, and it has been thought that no better means could be adopted. The ward is to cost £200.

Women's Hospital, Melbourne.—The building fund of the Women's Hospital has been increased by the addition of £811 in trust moneys which have been lying by for some few years. The moneys were raised to promote a bazaar in aid of the building fund, but in view of the prevailing depression, and owing to subsequent changes in the hospital management, the project was never carried out.

UNIVERSITY INTELLIGENCE.

University of Sydney.—At the monthly meeting of the Senate of the University, held on November 6th, the degree of Master of Surgery (Ch.M.) was conferred upon Mr. Oliver Latham, M.B. On the recommendation of Professor Welsh, it was decided that an optional practical course in bacteriology and hæmatology should be given by Dr. Barling to the present fourth-year students in the long vacation. On the recommendation of the Dean of the Faculty of Medicine, the following were appointed to act with the professors and lecturers in the conduct of the annual examinations in medicine and dentistry:—Faculty of Medicine: Pathology, Dr. G. E. Rennie; materia medica, Dr. A. E. Perkins; medicine, Dr. Macdonald Gill; surgery, Dr. G. T. Hankins; midwifery, Dr. S. H. McCulloch; gynæcology, Dr. Fourness Barrington; clinical medicine, Dr. E. J. Jenkins; clinical surgery, Dr. T. Fiaschi: psychological medicine, Dr. Eric Sinclair; ophthalmic medicine, etc., Dr. Odillo Maher; medical jurisprudence and public health, Drs. W. G. Armstrong and R. H. Todd; department of dentistry, Dr. A. Burne, Dr. A. B. Cox, Dr. Carter, Mr. P. B. Reading.

MEDICAL NOTES.

Charitable Bequests and Donations.—Under the will of the late Sir P. N. Russell bequests have been made to the following Sydney institutions:—Royal Prince Alfred Hospital, £3000; the Blind Institution in William-street, £2000; the Deaf and Dumb Institution, £2000; the Benevolent Institution, £2000; the Hospital for Sick Children, £1000. Mrs. George Harris, Ultimo, Sydney, has handed to the Queen Victoria Homes for Consumptives a gift of £1000 to endow in perpetuity the first bed for women at Thirlmere. This bed is to be known as the Matilda Duff Harri bed. The daughter of the late Thomas McKellar (of "Strathkellar") has promised the president of the Hamilton Hospital, Victoria, £2000 for the erection of a maternity hospital in memory of the long connection with the district of her late father, who laid the foundation stone of the first hospital erected there. She further undertakes to furnish it throughout. It is her wish that it should be named the "Thomas McKellar Hospital." The late Mr. Henry Osborne, of Pine Lodge South, Victoria, grazier, who died on August 5th, has bequeathed £500 to the Melbourne Hospital. The following donations for the year ended October 1st have been forwarded in the name of Mr. Thomas Budd Payne (testator) to the following institutions:—Melbourne Hospital, Alfred Hospital, Austin Hospital for Incurables, and Hospital for Consumptives in Victoria, £41 15s 2d each; and in the names of testator's late wife and daughters, Mr. R. M. Payne, Mrs. M. E. J. Ogilvy, and Miss R. A. Payne—Melbourne Hospital, Alfred Hospital, Austin Hospital for Incurables, Hospital for Consumptives in Victoria, Women's Hospital, £146 4s 6d each.

Lodge Doctors and their Fees.—At South Melbourne Court recently Mr. G. R. Huckell, medical practitioner, proceeded against C. Honeybone, of Albert Park, to recover £10 10s for an operation performed on defendant's daughter. The defence was that defendant had never been told by complainant that he would have to pay a fee for the operation, and was under the impression that there would be no charge for it, as complainant was his lodge doctor. Dr. Huckell stated in his evidence that the usual fee for the operation he performed was about 30 guineas, but that he had only charged defendant £10 10s, as he understood he was in poor circumstances. The case was adjourned to settle a conflict of testimony between a witness in whose hands the account had been placed for collection, and defendant. The Bench, after commenting on the conflict of testimony, made an order for half the amount claimed (£5 5s), and 21s costs.

Poisoning by Boric Acid.—At Armidale, N.S.W., on September 17th a magisterial inquiry was held into the death of a little girl, aged two years and nine months. On August 31st her flannelette nightdress caught fire, and both her legs were burned. Oil and baking soda were sprinkled on the wounds, and this treatment was continued till September 8th, when some boracic acid was sprinkled several times on the child's burns. The following day the child vomited a little, and got worse until September 14th, when she was first taken to Dr. Harris, and ordered into hospital. Dr. Harris found the burns covered by a white powder, and the child vomiting. She died on September 16th. After the post-mortem examination the opinion was expressed that the child died from boracic acid poisoning introduced into the system by absorption from the burns.

Child Study.—Mr. G. H. Knibbs, Director of Technical Education in New South Wales, last month gave a lecture before the Society for Child Study, in which he dealt with the type of progress and the general trend of the work in America and England. He contended that there should be fewer examinations in this State and that they should have better schools, better equipment, and better teachers. The vice of the examination system consisted of cramming, overburdening, and unhealthy studies. They resulted not only in the overburdening of pupils, but also teachers, because inspectors expected too much. What they wanted was faculty, not erudition; power, not memory. Mr. Knibbs remarked that, at least on a superficial view, child study had made little progress in New South

Wales, as compared with what might have been. This, in his opinion, was mainly due to a misconception of the proper function and main aim of the society's efforts. They would do well to guard against being influenced too much by people who wished to act before they were informed.

St. John Ambulance Association.—The annual meeting of the New South Wales Branch of St. John Ambulance Association was held on September 14th. The annual report referred to the progress which had taken place throughout the year in the work of disseminating first-aid knowledge by means of branches and detached classes in various parts of the State. First-aid instruction had also been given to the teaching staff and senior scholars at the public and private schools. During the year 37 classes had been formed, and students to the number of 7727 had attended a full course of lectures, 542 obtaining the association's certificate, while 15 qualified for the medallion. The number of members instructed in first aid and home nursing since the formation of the centre totalled 10,223. The work of the St. John Ambulance Brigade had been progressing satisfactorily during the year, and additional divisions had been formed at Wollongong, Lithgow, and headquarters of Civil Ambulance and Transport Corps, Sydney. The balance-sheet showed that the total receipts amounted to £433 7s 9d, and the expenditure to £349 11s 1d, leaving a credit balance of £83 16s 8d.

PERSONAL ITEMS.

Dr. Stevenson has been elected a member of the North-Eastern Licensing Bench, S.A.

Dr. F. G. Connor, who resided in Lismore, N.S.W., for about 20 years, has resumed practice at Mullumbimby.

Dr. H. L. Maitland, of Sydney, upon the occasion of his resigning the position of medical officer of No. 2 Royal William Lodge, P.A.F.S. of A., after ten years' service, was presented with an illuminated address.

Dr. A. J. Blue has succeeded to Dr. W. B. Dight's practice at Riverstone, N.S.W.

Mr. Thomas Walter Scott, M.R.C.S.(Eng.), L.R.C.P. (Lond.), of Terang, Victoria, has been admitted to the fellowship of the Royal College of Surgeons, Edinburgh. He is the son of Dr. Thomas Scott, of Warrnambool, Victoria.

The members of the committee of the Women's Hospital, Melbourne, on October 25th, at the Vienna Café, entertained Dr. M. U. O'Sullivan at afternoon tea, and welcomed him on his return from his trip to Europe.

Dr. Taylor Young has returned to Sydney after a trip to Europe, and has resumed practice.

Dr. Gordon MacLeod has returned from a trip to Europe, and has resumed practice at 16 College-street, Sydney.

Dr. Wolfhagen, of Hobart, represented the State of Tasmania at the International Congress on Tuberculosis held at Paris in October last.

Dr. Agnes Bennett has resigned her position as assistant medical officer at the Callan Park Hospital (Sydney) for the Insane, and has entered on private practice at Wellington, N.Z.

Dr. Kate Hogg has retired from practice in Macquarie-street, Sydney, and has been appointed assistant resident medical officer at Callan Park, Sydney.

The degree of M.D. has been conferred on Dr. Fulton, of Dunedin, by the University of Edinburgh

At the annual commemoration, Dr. Wm. Evans has been installed as Worshipful Master of the Lodge of Otago, No. 844, E.C.

Dr. Charles A. Low, late of the Southland and Mercury Bay Hospitals, has commenced practice at Auckland.

Dr. Charles Reece has commenced practice at Hamilton, N.Z.

Dr. H. Tressider, late of Dubbo, New South Wales, has succeeded to Dr. Pabst's practice at Onehunga, N.Z.

Dr. Hope, a recent arrival from England, has commenced practice at North Auckland.

Dr. Beattie, who has been paying a long visit to the United Kingdom, has returned to Auckland, and resumed his duties as Medical Superintendent at the Avondale Asylum.

Dr. Sorley, of Feilding, N.Z., has gone to Europe for a trip.

Dr. H. Barraclough, Assistant Medical Superintendent of the Porirua (N.Z.) Mental Hospital, has returned there after acting in the place of Dr. Beattie, chief of the Avondale Asylum, Auckland.

Dr. A. J. Turner has been appointed a trustee of the Queensland Museum.

Dr. Crooke, House Surgeon of the Christchurch Hospital, has been granted nine months' leave of absence, and intends visiting England. Dr. Bett, of the Thames Hospital, will act as his *locum tenens.*

Dr. J. Burton Cleland, who has been engaged in cancer research work at the London Hospital, has returned to Adelaide, S.A.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Broadbent, Percy Lewis, to be Junior Medical Officer, Department of Lunacy.

Davidson, Andrew, M.D., to be Medical Superintendent in the Department of Lunacy.

Hogg, Katie Welton, M.B., Ch.B. (Edin.), to be Junior Medical Officer in the Lunacy Department.

VICTORIA.

Campbell, Donald Albert, to be Senior Medical Officer, Hospital for the Insane, Yarra Bend, *vice* Dr. Phillpott, promoted.

Brown, Charles James, to be Junior Medical Officer, Hospital for the Insane, Ballarat, *vice* Ramsay Mailer, resigned.

Bush, H. S., M.D., Ch.B. (Melb.), to be Medical Officer to the Rutherglen United Friendly Societies' Medical Union, *vice* Dr. A. D. Kearney, resigned.

Hollow, Thomas Joseph, M.B., to be Medical Superintendent of the Ballarat Hospital for the Insane during the absence on leave of John Steell, M.B.

McLelland, Dr., M.B. (Melb.), to be House Surgeon at the Ballarat Hospital, *vice* Percy Langmore, resigned.

Philpott, Albert John William, to be Medical Superintendent, Hospital for the Insane, Beechworth, *vice* Dr. H. A. Samson, deceased.

To be Officers of Health.

Barnard, Charles Edward, M.R.C.S., for the Shire of Creswick, *vice* Thomas Stang, L.R.C.P., resigned.
Bird, Richard Kingston, M.D., for Arapiles Shire.
Hill, Arthur Machen, M.B., for Newstead Shire, temporarily for James Howard Eccles, L.R.C.S.
Liddle, Percy Herbert, M.B., for the Borough of Daylesford, *vice* Basil John Adam, M.B., resigned.

WEST AUSTRALIA.

Ambrose, Theodore, to be Officer of Health, Lennonville, *vice* C. S. Willis, resigned.
Laver, Dr., of Castlemaine, to be Resident Surgeon to the Laverton Hospital.
O'Connor, M., to be a member of the Board of Management of the Perth Hospital.
Stewart, J. M. Y., to be Gynæcologist for Outpatients, Perth Hospital.

SOUTH AUSTRALIA.

Angove, W. T., to be Medical Officer to attend to the destitute persons and aborigines within the district of Talunga.

NEW ZEALAND.

The following persons to be Public Vaccinators for the districts set opposite their names respectively :—

Hope, John Matfen, B.M., B.S. (Durham), of Kaitaia, *vice* Dr. Scatchard, deceased.
Lester, George Mackenzie Lester, M.R.C.S. (Eng.), L.R.C.P. (Lond.), for the District of Mt. Grey, *vice* Dr. Morris, resigned.

The undermentioned persons to be Medical Practitioners under the Workers' Compensation Accidents Act :—

Anderson, Richard Walker, M.R.C.S. (Eng.), L.R.C.P. (Lond.), L.S.A. (Lond.), Christchurch.
O'Neill, Eugene V., M.B., Ch.B. (N.Z.), F.R.C.S.E., M.R.C.S. (Eng.), L.R.C.P. (Lond.), Dunedin.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as Legally Qualified Medical Practitioners in their respective States :—

VICTORIA.

Pern, Sydney, M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1900.

Additional Qualification.

Edwards, Frank Payne, M.B., Ch.B.. (Camb.), 1903.

SOUTH AUSTRALIA.

Ker, Thomas Campbell, M.B., Ch.B. (Melb.), 1904.
Browne, John Walter, M.B., B.Ch. (Irel.), 1900.
Hoggan, Bertram Brooke, L.R.C.P. and S. (Edin.), and L.F.P. and S. (Glasg.), 1888.

QUEENSLAND.

Heymann, Phillip, M.D. (Leipsic), 1898 ; Staats Examen. (Strasburg), 1890.
Sisca, Natale, M.D. (Naples), 1885.

Additional Qualifications.

Hawkes, Claude Somerville, F.R.C.S. (Edin.), 1904.
Marks, Alexander Hammett, M.D. (Dubl.), 1905.

TASMANIA.

Irvine, Richard Charles, M.B., Ch.B. (Edin.), 1902.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

BUSBY.—October 6th, at the residence of her parents, Karoola, Wahroonga, the wife of Hugh Busby, M.B., Ch.M., Bathurst, N.S.W.—a daughter.

HAGENAUER.—October 5th, at Sale, Victoria, the wife of G. A. Hagenauer, M.B.—a daughter.

HAYES.—October 11th, at Lisnalee, Warragul, Victoria, the wife of Horace F. Hayes, M.B., M.R.C.S.—a son.

LYNCH.—October 1st, at St. Andrew's Manse, Wakefield-street, Adelaide, the wife of Arthur F. Lynch, M.B., Ch.B.—a daughter.

MULLEN.—October 12th, at Yarra Bend, Victoria, the wife of Wm. L. Mullen, medical superintendent—a son.

STIRLING.—August 12th, at 217 Lonsdale-street, Melbourne, the wife of R. A. Stirling—a daughter.

THROSBY.—October 5th, at "Eastington," Bowral, N.S.W., the wife of Herbert Throsby, M.B.—a son.

MARRIAGES.

CORLETTE—DUNN.—September 27th, 1905, at St. Saviour's Cathedral, Goulburn, by the Lord Bishop of Goulburn, assisted by Rev. J. W. Ward, Cyril Ernest Corlette, M.D., Ch.M., D.P.H., Sydney, eldest son of the late Rev. J. C. Corlette, D.D., Canon of St. Andrew's Cathedral, Sydney, and Rector of St. John's, Ashfield, to Annie Lawrie Dunn, second daughter of Henry Dunn, Esq., of Merilla, near Goulburn, N.S.W.

MORGAN—DUTTON-GREEN.—October 11th, at St. Oswald's Church, Parkside, Adelaide, by the Rev. E. A. Forbes, Alexander Matheson Morgan, M.B., younger son of the late Sir William Morgan, to Myrtle Ellen, youngest daughter of G. Dutton-Green, of Holmfield, South Terrace.

DEATHS.

CHALMERS.—October 18th, at her residence, Glensloy, Childers-street, Adelaide, Benjamina Horne, widow of the late Andrew Chalmers, M.D., and daughter of the late Allan McFarlane, of Wellington Lodge, South Australia.

EKIN.—October 14th, at Oberon, near Tarana, N.S.W., Dr. William Ekin, J.P., third son of S. E. Ekin, Esq., J.P., Soran House, Stewartstown, Ireland, aged 39 years.

GRIFFITHS.—November 3rd, at Preston, Hampshire, England, Herbert T. Griffiths, M.D., aged 52 years.

HALSTEAD.—November 8th, at her daughter's residence, Craigmount, Belmore-street, Burwood, Sydney, Emma Elizabeth, widow of the late Herbert Halstead, of Budleigh, Salterton, Devon, England, and daughter of the late Thomas Turner, M.R.C.S., M.C.R.C.S., F.L.S., etc., of Manchester, aged 78 years.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. James B. Hogg, Queensland ; Messrs. Baillière, Tindall and Cox, London ; Dr. B. B. Ham, Brisbane : Dr. R. W. Lethbridge, Sunbury, Vic. ; Dr. J. Kearney, Parramatta ; Dr. T. L. Bancroft, Alderley, Q. ; Mr. G. T. Taylor, Hobart ; Dr. Simpson Newland, Adelaide ; Dr. W. J. S. McKay, Sydney ; Dr. L. H. Harris, Sydney ; Dr. R. H. Todd, Sydney ; Dr. C. A. Hogg, Kenmore, N.S.W. ; Dr. Moni, Tambo, Q. ; Dr. T. Hope Lewis, Auckland ; Dr. J. B. Gunson, Adelaide ; Dr. D. Wield, Brisbane ; Dr. Sinclair Gillies, Sydney ; Dr. W. Chisholm, Sydney ; Dr. H. C. Hinder, Sydney ; Mr. L. Bruck, Sydney ; Dr. F. H. Quaife, Sydney ; Dr. Walter Spencer, Sydney ; Dr. W. Camac Wilkinson, Sydney ; Dr. Gordon Craig, Sydney ; Dr. Russell Nolan, Sydney ; Dr. H. Laurie, St. Kilda, Vic. ; Dr. A. S. Joske, Prahran, Vic. ; Dr. W. S. Laurie, Werribee, Vic.

BOOKS RECEIVED.

Ambulance Examination Questions : Being a Catechism on Warwick & Tunstall's First Aid to the Injured and Sick. By D. M. McDonald, M.B. Bristol : John Wright & Co. 1905. Price, 6d net.

The Nature and Treatment of Cancer (some Methods of Hypodermic Medication in the Treatment of Inoperable Cancer). By J. A. Shaw-Mackenzie, M.D. (Lond.). Second edition. London : Baillière, Tindall & Cox. Sydney : L. Bruck. 1905. Crown 8vo. Price, 2s 6d net.

A Manual of Surgery for Students and Practitioners. By Wm. Rose, M.B., B.S. (Lond.), F.R.C.S., and A. Carless, M.S. (Lond.), F.R.C.S. Sixth edition. London : Baillière, Tindall & Cox. Sydney : L. Bruck. 1905. Demy 8vo. Price, 21s, cloth.

System of Physiologic Therapeutics. Edited by S. S. Cohen, M.D. Vols. 5 and 7. Philadelphia : P. Blakiston's, Son and Co., 1012 Walnut-street. 1903.

The Medical Diseases of Egypt. By F. M. Sandwith, M.D., F.R.C.P. Part 1. London : Henry Kimpton, 13 Furnival-street, Holborn. 1905. Price, 7s 6d net.

Military Hygiene. By Robt. Caldwell, F.R.C.S., D.P.H. London : Baillière, Tindall & Cox. Sydney : L. Bruck. 1905. Price, 10s 6d net.

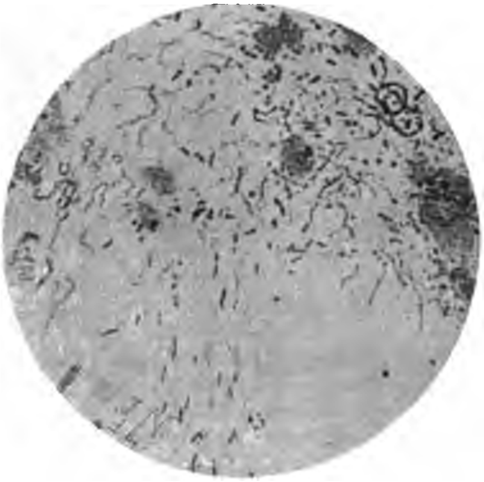
AUSTRALASIAN MEDICAL GAZETTE

NOTE ON THE SPIROCHÆTA PALLIDA OF SHAUDINN AND HOFFMANN.

By W. J. Munro, M.D.

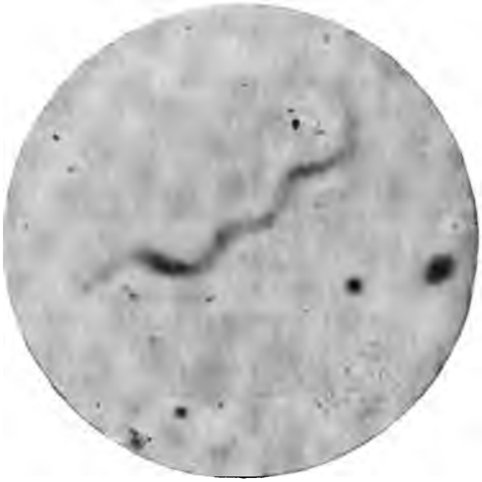
THE spirochæta pallida was described in a preliminary note by Shaudinn and Hoffmann, published,[1] I believe, in May of this year. According to these observers, its distinguishing points are as follows:—(1) Length, 4 to 14 μ; (2) breadth, almost indeterminable, maximum to 5 μ; (3) number of spirals, 3 to 12. Its ends are pointed, it is mobile, exhibiting an undulatory motion when the body as a whole is at rest, and also progressing with corkscrew like movement. It retains its mobility for some hours in physiological water. With ordinary aniline colours it stains very feebly, and refracts light scarcely at all; its spirals are tightly drawn and it is comparatively straight.

I.



X About 1000 diameters.

II.



X 9750 diameters.

DESCRIPTIONS OF PLATES.

Both are taken from unretouched photographs. I. This preparation is from a swabbing of surface of a mucous papule on the throat. A spirochæta pallida may be seen, situated perpendicularly, above the central 0 in the number 1000, about half way to the centre of plate. Note the faint staining compared with the other microbes present. II. End of a spirochæta. The rest is out of focus. This is an enlargement from an ordinary micro-photograph. Note the pointed termination, and the distinctly corkscrew-like appearance.

The spirochæta pallida is only found associated with syphilitic products, but the same authors[2] have described another similar organism sometimes found in specific lesions, but more often in the secretions collected about the genitals. This latter differs from the former in being coarser, larger, in more powerfully refracting light, its spirals being more wavy and undulating than corkscrew shape, and its flatter and wider contour. It also colours much more readily with ordinary staining solutions. Shaudinn and Hoffmann, because of its refractile properties, have called this microbe the "spirochæta refringens." Very probably it is merely a saprophyte.

The spirochæta pallida has been found in all superficial specific lesions, both primary and secondary, except, I believe, roseola, but it has not as yet been detected in any tertiary products. Furthermore, its presence has been noted in the gland juice and blood of early syphilitics, and in the spleen, liver, and blood of children suffering from the inherited disease. Out[3] of six monkeys inoculated at the Pasteur Institute, Paris, by Roux and Metchnikoff, in four it was found; however, it may be mentioned that in one of the negative cases the animal had practically recovered, and hence it is hardly fair to count this one; therefore, strictly speaking the positive results were four out of five. These micro-organisms herewith illustrated, have pointed ends (see illustration No. 2), and vary in length from 5·5 μ, the smallest measured, though there were smaller in the preparation, to 14·4 μ, the largest. With ordinary reagents they colour so feebly that they can hardly be seen, save by an observer familiar with the contour of the same organisms more deeply stained; its spirals are tightly drawn out, and it can be noticed that, owing to the rubbing necessary in spreading the smears, some of the spirals are almost straightened. It will be seen that the microbes are extremely attenuated, so much so, in fact, that owing to their appearing narrower than the lines on my micrometer eyepiece, it was impossible to measure their breadth. Shaudinn and Hoffmann advise as a colouring reagent the use of G. Giemsa's stain, but this and its constituent materials are at present unobtainable here. However, Dr. Wilkinson drew my attention to the method proposed by Oppenheimer and Sachs,[4] which is as follows:—(1) Dry the smear in air; (2) flood with carbol-gentian-violet solution; (3) warm slowly and carefully until the liquid just steams; (4) wash thoroughly in a gentle current of water; (5) dry first with filter paper and finally again in air. [The organism is exceedingly fine and difficult to see.] The preparation exhibited is taken from a mucous patch in the pharynx. One preparation from a papulo-erosive tonsillar lesion of a patient after a month's treatment, showed comparatively speaking, numerous spirochætæ, and after a further two months' course of inunction, followed by grey powder internally, it was very difficult to find the few that were present.

Controls were made as follows:—Two slides were prepared of each specimen, and one was stained with ordinary aniline colouring solution, with a result that though the numerous ordinary microbes were deeply stained, the spirochætae in question were feebly, if at all, visible; one or both then were coloured with carbol-gentian violet with decided positive results. Furthermore, thirteen swabbings were examined from a corresponding number of presumably healthy throats, with negative results as far as the spirochæta pallida was concerned. Seventeen preparations were taken from the throats, mouths and indurated glands of thirteen syphilitic patients, and fine spirochætæ were demonstrated in each, though after prolonged search in those from the glands.

Owing to some actinic effect during the prolonged exposure of the photographs (45 minutes with yellow screen and a very small stop), the microbes appear thicker than they actually do during direct visual examination.

The following is a list of the abbreviated results of the observations of some of the various observers who have investigated this subject:—1 and 2. Shaudinn and Hoffmann state that they have found the spirochæta pallida in superficial lesions in all cases of pure syphilis, and in four out of five where complications existed, and the spirochæta refringens being associated with three of the cases. In eight cases of confirmed syphilis the spirochæta pallida was seen in six specimens taken from excised glands, or in the fluid obtained by aspiration. In four cases of syphilis, plus gonorrhœa, papillomata, chancroid, and balanitis, where the glands were indurated by the specific disease, the latter contained the S. pallida alone. Shaudinn and Hoffmann, on examining the splenic blood obtained during life, found the S. pallida before the outbreak of any eruption. None were found in ordinary skin affections. Shaudinn and Hoffmann believe the microbe to belong to the protozoa. 3. Metchnikoff and Roux, as before mentioned, found S. pallida in four out of six monkeys inoculated with syphilis. Frosch found it in venous blood. 5. Raubitschik discovered it in the circulation in secondary syphilis. 6. Kraus never found it in controls. 7. Levaditi observed it in bullous fluid from specific pemphigus, and in the spleen, lung, and liver of a congenital syphilitic. 8. McWeeney found it in nine primary and secondary cases, but not in a tertiary. 9. Spitzer observed it in six cases of primary sore, and seven of skin eruptions. 10. Babes and Panea report its presence in congenital syphilis, the organisms being very numerous in the suprarenals. 11. R. Hexheimer and H. Hübnei in eighteen cases examined, detected it in fifteen out of sixteen, which were undoubtedly syphilitic; the remaining two turned out to be soft sore. Many other authorities have made equally convincing observations, and the mere list of their names would occupy too much space. Considering the evidence, one would be surprised should this micro-organism not prove to be the ætiological agent of syphilis.

In conclusion, I have to thank Dr. Wilkinson for the loan of copious German journalistic literature bearing on the subject; and Dr. Marsh, of the Sydney Hospital, who obtained a number of specimens for me.

(Read at the November meeting of the B.M.A., New South Wales Branch.)

1. Shaudinn and Hoffmann, *Arbesten Ausdem Gesund-Leitsennte* 1905, Bd. xxii., H2, s. 527.
2. S.ü.H., *Deut. Med. Wochen Sch.*, May 18, 1905.
3. *Bull de l'Acad de Med.*, May, 1905, p. 468.
4. *Deut. Med. Wochen*, July 20, p. 1156.
5. *Wien. Klin Wochen*, 1905, No. 28.
6. *Wien. Klin Wochen*, 1905, No. 22.
7. *Sem. Med.*, May 24, 1905.
8. *B.M.I.*, June 10, 1905.
9. *Wien. Med. Woch.*, August 3, 1905.
10. *Ber. Klin Woch.*, No. 28, July 10, 1905.
11. *Deut. Med. Woch.*, No. 26, June 24, 1905.

REMARKS UPON NINE CASES OF PERNICIOUS ANÆMIA.

By W. Camac Wilkinson, B.A., M.D. (Lond.), F.R.C.P.; Lecturer in Medicine, Sydney University; Hon. Physician, Royal Prince Alfred Hospital.

At the request of the secretary of the branch I have undertaken to present a short review of nine cases of pernicious anæmia that have come under my notice in the last four years, in order to emphasise the curious fact that, although it is possible by a simple procedure to examine the morbid anatomy of the blood at will even during life, this examination is too often left in abeyance. The examination of the blood for clinical purposes may reveal conditions unsuspected, and often help in the diagnosis of disease at a critical stage of doubt and difficulty. Although there seems to be little nowadays that our own surgeons and gynæcologists consider to be beyond their range of vision and influence, diseases of the blood are for the nonce left to the physician. Yet, I should say at random that blood examinations are with us more frequent in the surgical than in the medical wards. Leucocytosis in a rough sense appeals especially to the surgeon.

Taking pernicious anæmia for my text to-night, I shall speak almost exclusively of the important changes that may be observed in the red cells of the blood. Normally, the blood contains but one form of red cell—the orthochromatic non-nucleated red cell, upon which depends the whole process of oxidation throughout the body. Nature believes in the economic principle of division of labour. This normal red cell, or normocyte, bereft of its nucleus, can no longer assimilate, or grow, or multiply, but it is thus better fitted to discharge its function as a carrier of oxygen. These special oxygen-carriers are formed in adult life exclusively in bone-marrow from normoblasts. How the nucleus disappears from the normoblast is still debated. It may gradually dissolve (karyolysis); it may break up into small basophil masses, and then produces red cells with basophil granules, so typical of pernicious anæmia and leukæmia, and common also in chronic lead poisoning and malaria; it may persist, as Engel thinks, in certain red cells and later be discharged in the form of blood platelets. So much for the orthochromatic non-nucleated red-cell of normal blood. The aberrant forms of red cell occurring in various diseases are non-nucleated and nucleated.

Of the non-nucleated forms, the *chlorotic erythocyte* is very common. This is a pale corpuscle, deficient in hæmoglobin, and with a cup reaching almost to the edge of the cell. *Microcytes* and *poikilocytes* are commonly associated, and are probably mutilated cells. These cells occur in large numbers in chronic anæmia, and may or may not occur in pernicious anæmia. They are not pathognomonic of pernicious anæmia. They are for the most part orthochromatic. More important in diagnosis are the megalocytes—cells larger than normocytes, often without any cup, and elongated or pear-shaped. They are usually rich in hæmoglobin. The megalocyte has no relation to the forms already mentioned. A normocyte does not enlarge and become a megalocyte. Megalocytes in the blood after birth have an ominous significance; they tell us that the tissue whence the red cells come—the bone-marrow, in fact—is profoundly changed, and in appearance and structure has reverted to the type of marrow found in the embryo. The megalocyte may have even greater energy as a carrier of oxygen, but its presence in the blood is a sign that the bone-marrow contains megaloblasts indistinguishable from the megaloblasts that are found in bone-marrow almost entirely before birth. The megaloblast is the sole source of the megalocyte. Like the megaloblasts, whence they come, the megalocytes may be orthochromatic or polychromatic. In abnormal conditions, normocytes may also be polychromatic—then they are formed from polychromatic normoblasts. Polychromatic erythroblasts (normal and large) are formed from the orthochromatic type in bone-marrow. It is remarkable that though polychromatic erythroblasts are numerous in bone-marrow, the polychromatic normocyte does not escape into the blood in health. Yet after a severe hæmorrhage, and especially in chronic and other forms of anæmia, polychromasia is a striking feature of the red cell. The characteristic cell of pernicious anæmia—the megaloblast—is generally polychromatic. Polychromasia is recognised by various stains, and nowadays staining plays a very important part in the differentiation not only of the white cells but of the red cells in various diseases.

An orthochromatic normocyte is tinged pale green, with methylene blue, stains rose pink with eosin, and affects the orange in the triacid stain of Ehrlich. Polychromasia is recognised best by means of Chenzinsky's eosin methylene blue stain. After fixing in alcohol for five minutes, polychromatic cells, nucleated or non-nucleated, are stained violet, and the surface may appear uneven or wavy. Chenzinsky's stain is certainly the best stain for showing the basophil dots or granules in the red cells. After carefully fixing the blood by heat according to Ehrlich's plan, the triacid stain gives the polychromatic red cells a deep red hue, like fuchsin. According to Engel, these cells are fuchsinophil, and are therefore stained by the acid fuchsin of the triacid mixture. The polychromatic cells, in fact, do not manifest the normal reaction of hæmoglobin to the acid stains, eosin, orange, and acid fuchsin. On the contrary, the hæmoglobin is so modified that it rather exhibits an affinity for basic dyes.

All authorities are agreed upon these facts, but the nature of polychromasia has been much discussed. Ehrlich originally held that this change was essentially degenerative, the result of a coagulation necrosis of the discoplasm, and often a senile change. This absolute view has to be modified because polychromasia is observed in the red cells of embryonic tissue, especially in the vessels of the liver, and further the change may be seen in cells, in which the nuclei are actively dividing. Gabritschewski and others claim that polychromasia is the mark of juvenility. Further, it has been mentioned already that in normal bone-marrow the polychromatic cells are in the majority. The view of to-day is that polychromasia is not the result of age or degeneration, although some authorities, such as Engel, consider that polychromasia is a sign of lesser functional energy. Thus in certain conditions when a large demand is suddenly made upon the bone-marrow, after sudden hæmorrhages, and also when the functional energy of the bone-marrow is, slowly exhausted, as in chronic anæmia, but especially in pernicious anæmia, polychromasia becomes a feature of the fresh elements supplied by the bone-marrow to take the place of the lost or destroyed orthochromatic cells. The frequency of this modification of the hæmoglobin in pernicious anæmia indicates that at any rate polychromasia in the blood is hardly a sign of healthy activity in the bone-marrow. Whatever may be the nature of polychromasia, this change is quite different to the peculiar appearance of basophil granules or dots in the red cells, whose nature and origin are also much discussed.

A megaloblast is mostly polychromatic. The difference between a megaloblast and a normoblast is much more than a difference in size. The megaloblast may be distinguished rather by its nucleus than its mere size. The nucleus of the normoblast is rich in chromatin masses and points, which stain deeply; the nucleus of the megaloblasts is poor in chromatin and stains delicately, even more faintly than the nuclear chromatin of the ordinary leucocytes. The nucleus of the megaloblast consists of a delicate chromatin network uniting with the border. It is definite enough but very delicate.

Megaloblasts may even occur in normal bone-marrow (Grawitz), and may be found in the blood in rare cases of chronic anæmia or in cancer metastasis, invading bone, but megaloblasts in the blood, if persistent and relatively numerous, are practically pathognomonic of pernicious anæmia; yet even in pernicious anæmia (as in case 2) neither megaloblasts and few megalocytes may be found in the blood even when both megaloblasts and megalocytes abound in bone-marrow.

In pernicious anæmia the characteristic lesion is a metaplasia (Ehrlich) of the bone-marrow. Bone-marrow assumes the character that belongs to bone-marrow in embryonic life. Engel's investigations upon the development of blood in different animals show that the development is more complicated in mammals than in lower animals. In the production of red cells in man and other animals Engel recognises two distinct stages—the premedullary and the medullary, or, as he calls them, the provisional and definitive stages: the appearance of the bone-marrow being the dividing line between these two stages. The first stage, in which the liver is the chief blood forming organ, forming normoblasts and megaloblasts, especially of the polychromatic type, begins with the appearance of the red cells in the embryo and ends with the appearance of bone-marrow. The second stage embraces the events from the formation of bone-marrow to the end of life. In the pre-medullary stage the colourless cells play a subordinate part in the human embryo; when its length is about 8 c.m., red points appear in the long bones—large nucleated red cells, orthochromatic and polychromatic, appear, and, later, myelocytes and other leucocytes develop. In the fifth month the marrow contains the cells which are found in extra-uterine life, normal erythocytes, normoblasts, both orthochromatic and polychromatic, and megaloblasts and transitional forms. Engel says: "Megaloblasts, which are rare (in the bone-marrow) after birth, are not very numerous at this stage." In pernicious anæmia the blood of the bone-marrow assumes the characters thus described, and in the majority of cases megalocytes and megaloblasts escape into the blood. But in some cases, as in case 2, the bone marrow may be profoundly changed and yet the blood itself may lack the megalocytes and megaloblasts. Again, as we shall see, metaplasia of the bone-marrow may fail and instead aplasia of bone-marrow may cause profound and fatal anæmia. This aplastic bone-marrow is very rare. Ehrlich has seen two cases and Engel one. In this form of anæmia megalocytes and megaloblasts are not in the bone-marrow, and therefore cannot be in the blood. Engel thus explains this rare form: In adults red marrow occurs in the epiphysis, fat marrow in the diaphysis. In severe forms of anæmia the fat cells are converted into red cells, and thus red marrow occurs in the diaphysis also. In aplastic marrow, on the other hand, both in the diaphysis and epiphysis fat marrow is found, even replacing the red marrow of the epiphysis. The red marrow degenerates and becomes converted into a "grey white watery mass containing bacteria." In such cases a careful examination of the blood may reveal the condition of the bone-marrow because the blood formed by this aplastic marrow acquires a character of its own. According to Engel, the red cells are reduced to 2,000,000 per cmm., or half the normal number; the hæmoglobin to one-fifth of the normal (18 per cent.), a few poikilocytes, no microcytes, no macrocytes, no nucleated red cells, no polychromatic cells. The leucocytes exhibit a very striking composition. Eosinophils fail altogether, polynuclear neutrophils only 7 per cent. instead of 70 per cent.; while the lymphocytes are 90 per cent. instead of 25 per cent. There is an absolute diminution of the leucocytes. In fact, those leucocytes which come from bone fail in the blood, and only those leucocytes are found which are formed in other organs than bone-marrow.

Nor must we forget that the bone-marrow is chiefly concerned in the production of certain forms of leucocytes. Eosinophils and neutrophils especially fail in pernicious anæmia, so that there is a relative increase of the common small lymphocytes. Blood platelets also fail. On the other hand, immature bone-marrow cells—myelocytes—may be found in the blood in pernicious anæmia. The presence of these myelocytes is a connecting link between the pernicious anæmia of adult life and anæmia pseudo-leukæmica infantum. In this disease enlargement of the spleen and increase of the leucocytes occur. Sometimes the granular leucocytes, sometimes the lymphocytes, are chiefly affected, but almost always myelocytes are found in the blood. Nucleated red cells may also occur in the blood. The microscopic picture may resemble on the one hand pernicious anæmia, on the other hand leukæmia.

In the simple forms of chronic anæmia and in acute post-hæmorrhagic anæmia the bone-marrow has to replace any deficiency in red cells. The bone-marrow remains normoblastic, but other than orthochromatic red cells escape into the blood, cheifly polychromatic normocytes and normoblasts. According to Engel, in some case of severe destruction of blood in obscure conditions, none but orthochromatic red cells escape into the circulation. Apart from this form, which is very rare, the blood affords valuable evidence towards a correct diagnosis in all forms of anæmia. Naturally the clinical features of any case should also be carefully and thoroughly investigated. The state of the skin, its peculiar pallor, the temperature, local œdema especially about the ankles, the state of nutrition, especially the presence of subcutaneous fat, the state of the heart and vessels, including the vessels of the retina (though retinal hæmorrhages may fail), the state of the mouth and particularly the teeth, the state of the stomach and its HCl. producing function, the state of the intestines and fæces (never forgetting to examine for parasites) and related thereto the presence of urobilin and indican in the urine, and lastly the state of the brain and spinal cord, causing that striking listlessness, that weariness and irresponsive state of mind, and moreover occasionally the symptoms of tabes dorsalis—all these clinical manifestations in varying degrees form a picture, which in very many cases forthwith suggests pernicious anæmia, but in every case the blood should be carefully examined, because it not only establishes the diagnosis but also indicates the degree or stage of the disease. I have seen reports of a great many cases of pernicious anæmia, but in almost all the reduction of red cells has been enormous—to one-fourth or one-fifth of the normal numbers. It would be well if we knew more of the disease before such a profound change had been wrought in the bone-marrow. In this, as in so many other diseases, early diagnosis is difficult, but let us hope that early diagnosis at the hands of the skilful hæmatologist may be the prelude to more satisfactory results in treatment. In the last four years I have seen nine cases of pernicious anæmia, and yet in but one of these cases was the diagnosis of pernicious anæmia definitely made. In the other eight cases, with one exception, the blood had not even been examined before I saw them, although in every case the pallor was pronounced and the red cells were less than a quarter of their proper number. The single case that was recognised came into the ward shortly after my house physician had another case of mine under observation. Errors in diagnosis are inevitable if we trust blindly to our knowledge of yesterday.

It would serve no purpose to give a full description of a disease that has been described so accurately by Addison (1857) and Biermer (1868), but it may be useful to give an abstract of these nine cases in order to illustrate the pitfalls that may lie in the way of an accurate diagnosis.

Case I.—Female, *æt.* 35. Six weeks before admission post-partum hæmorrhage, followed by loss of health and fever. On patient's admission received urgent message to go and see a case of "ulcerative endocarditis." Temperature 103°-104° in the evening; irregularly intermittent; extreme pallor and urgent breathlessness, especially on least exertion; rapid pulse; murmurs. I gave my opinion at once—"pernicious anæmia"—and examining the blood at once, lectured next day upon the case as "pernicious anæmia." The blood showed great reduction of red cells, megalocytes, absence of rouleaux, and very little blood flowed from prick, though it oozed slowly. Its colour was very pale. I gave the opinion that not only was there pernicious anæmia, but that there was no disease of the valves. Nevertheless my diagnosis was disputed till the post-mortem examination disclosed the typical changes of pernicious anæmia in the bone-marrow, heart and liver, and perfectly healthy valves. The woman died some days after admission.

Case II.—Young girl, *æt.* 23, admitted for dysentery; appearance suggested extreme chlorosis, though there was waxy pallor; stools loose, foul and like boiled spinach; mouth foul, and full of carious teeth, 13 of them rotten. The blood, which I examined many times, had not altogether the usual features of pernicious anæmia, but rather that of a mixture of chlorosis and pernicious anæmia. Hb. 15 to 20 per cent.; red cells, 1,600,000; white cells, 3,500; lymphocytes in excess; a few doubtful megalocytes, but chiefly microcytes and poikilocytes and chlorotic normocytes; also polychromatic normoblasts, even microblasts, but no megaloblasts. The colour index was much under 1; red cells with basophil granules were numerous. There were numerous small retinal hæmorrhages in both eyes, near fundus. This patient, in spite of her condition, was cheerful. She was not "dead to the world." In spite of attention to the mouth and the extraction of teeth (though the risk of hæmorrhage was fully realised), no improvement occurred. She slowly succumbed. Again the post-mortem examination disclosed the typical changes in the bone-marrow, heart, liver, etc. This case shows that though the bone-marrow may abound in megaloblasts, megaloblasts may not be found in the blood, and even megalocytes may be very few or indeed absent.

Case III. was admitted for Bright's disease. There was very evident pallor, and I inclined to the diagnosis, "pernicious anæmia." The blood examination showed great reduction of red cells, while megalocytes and a few megaloblasts were discovered.

Case IV. has a special interest. I was asked to examine her by Dr. Hinder in the surgical ward. Dates illness 18 months back, when, on her way from England, she suffered severely from sea-sickness. Became jaundiced; got better, but has had four attacks of jaundice since; no pain. Recurrent attacks of jaundice, with vomiting and loss of health, suggested chronic pancreatitis. Nevertheless at first examination I recognised great pallor, not completely masked by the jaundice, and expressed the opinion that pernicious anæmia was a likely condition. The patient was removed to one of my beds, and though a careful examination could elicit no evidence of chronic pancreatitis (no fat or muscle fibres after meat diet, and after salol (1 oz.) tests for salicylic acid and carbolic acid in urine positive) and no ova in fæces, the blood examination disclosed the features of pernicious anæmia.

7/5/03.—Red cells, 1,350,000; white cells, 2500; microcytes, poikilocytes, megalocytes, and a few megaloblasts; well marked polychromasia and red cells containing typical basophil granules.

Later.—Red cells, as before 1,150,000; white cells, 1250; small lymphocytes and polynuclear neutrophils in equal numbers. Some bad teeth were extracted. Under arsenic she improved considerably and then went out at her own wish. She died within three months of leaving the hospital. The condition of her blood did not justify an exploratory incision. No doubt the jaundice was due to obstruction.

Case V.—Male, 58, Swede. Came in for cough and shortness of breath, and was treated for asthma and bronchitis two or three weeks before I saw him. When I saw him I suggested an examination of the retina and the blood. Fundus normal, but blood as follows:—Fresh: Poikilocytes and failure of rouleaux. Red cells, 1,245,000; white cells, 3800. Hb. value, 32 %; colour index, 1·3. Stained specimen: Poikilocytes, microcytes, a few megalocytes, three megaloblasts, and one normoblast seen. In notes one reads, "takes quite half a minute to answer a question"; also some delirium; urine normal.

Case VI.—Female, *æt.* 62. Was the first case to be recognised before I saw her, and the anæmia was profound. Blood examination: Red cells, 800,000; white cells, 1060. Many megalocytes and, relatively, many megaloblasts, poikilocytes, and red cells, with basophil granules. Utterly apathetic to her surroundings, and marked waxy, transparent pallor of face, etc. Retinal hæmorrhages and also tenderness over bones, especially of forearms.

Thus five out of six cases of pernicious anæmia were masquerading as "ulcerative endocarditis," "dysentery," "Bright's disease," "asthma," and "obstructive jaundice" for some time, because, in spite of marked pallor, the blood was not examined.

Of three cases seen in private practice, the blood had been examined in England in one case, and the physician pronounced against pernicious anæmia. In the other two cases no blood examination was made till I suggested it, when the blood was found to be characteristic of pernicious anæmia.

Case VII.—Male, *æt.* 50. History of bleeding piles. Complained of marked hyperæsthesia of mouth and tongue, especially to acids, though no visible erosions or hæmorrhages. Other usual symptoms, except no retinal hæmorrhages at any time, achlorhydria, urobilinuria, etc. Blood: Red cells, 1,500,000; white, 4000. Microcytes, poikilocytes, fair number of megalocytes; megaloblasts few, not more than one or two in a preparation; polychromasia, especially of megaloblasts; red cells with basophil granules; lymphocytes rather in excess of polynuclear neutrophils. Hb. value 35 %, colour index 1·09. Later—Red cells, 1,300,000; white, 2500. Hb. value 22 %, colour index ·85. Rest, special diet, washing out bowel, and arsenic produced marked change in about six weeks, and some months later blood count showed—red cells, 3,700,000 (megaloblasts could not be found), and appearance of cells improved. Colour index, under 1. I advised patient to take great care of himself for two years, taking no risks. A respite for five years is necessary before we can speak of a cure. The patient, bearing in mind the opinion of the distinguished London physician, came to the conclusion that I had exaggerated the seriousness of his condition, and was ready enough to adopt the optimistic view of a physician in Melbourne. There, also, he consulted a surgeon.

It happened to be race week, and, under the combined advice of physician and surgeon and of hosts of friends, he spent his day somewhat as follows:—High frequency in the early morning, under the surgeon; massage, later in the day, under the physician; Flemington Racecourse in the afternoon; dinner party in the evening; and then, to crown it all, a few extra hours either at bridge or Federal politics. Needless to say, I was some vinegar or mustard overcomes the difficulty to a great extent; most sauces contain salt and must be prohibited. Where the fits have a distinct periodicity, the bromide may be given intermittently, being omitted after an attack and resumed some time before an expected recurrence, or after improvement has taken place a dose only at night may be taken. A case I saw recently is a good example of bromide treatment. The patient was a woman, aged 35. I saw her about nine years ago; she had then had fits for many years at odd intervals, but for about two years they had been getting more frequent, till they recurred about every 10 to 14 days. She took 15 grains of bromide of potash three times a day for about six months, when the fits became less frequent and less severe. In about a year they had almost stopped. During the next year she had two or three slight attacks; then they stopped finally. After this she took 20 grains every night, and has continued this up to the present on her own account, being afraid to leave the drug off. No fit had occurred for seven years, so she may be looked upon as a cure. It is better as a rule to give the bromide in one large dose daily than three or four smaller ones. It seems better tolerated in this way, and produces better effects. The actual daily dosage should be carefully gauged, the minimum being administered that will produce a good effect; nothing is to be gained by heroic doses. It is an interesting fact that though the bromides undoubtedly control the fits, yet no greater percentage of cured cases are produced than were obtained before bromides were introduced. Only about 10 per cent. of epileptics are cured—*i.e.*, remain free from all manifestations of the disease for three years; and this is practically the same percentage as used to be obtained many years ago by treatment with silver, belladonna, zinc, and the other methods then in vogue.

One of the untoward effects of the prolonged administration of bromide is acne. A small dose of arsenic is commonly prescribed with the bromide in order to lessen the chance of its production. Sometimes full doses of arsenic are of benefit, not only for their action in preventing acne, but also for their so-called alterative effect. What this effect quite is we do not know; possibly like some other of the alterative class it may increase oxidation in the tissues or have some effect on the enzymes of the tissues. We can also recall the influence of arsenic in chorea, asthma, and occasionally in migraine, the two latter being allied to and interchangeable with epilepsy. Speaking of arsenic leads us on to other drugs of the alterative class, and of these the two most useful are iodide of potash and mercury. These are usually said to be most useful in cases where there is a syphilitic taint. I would also urge their usefulness in cases where there are no such conditions, especially in cases where there are slight evidences of cerebral degeneration. In combination with bromide I think they form by far the best routine treatment we can employ, and here again the addition of full doses of arsenic for limited periods is also of value. The iodide and mercury are of most value in children and young adults, the iodide and bromide alone in older cases, and in connection with these drugs we may remember that under their use pulse tension and blood pressure are lowered, and connect this with the fact that epileptics with high blood pressure offer a better prognosis than those with low, provided that the pressure is decreased under treatment. Of the other drugs that act on the brain in some way, borax, chloral and zinc may be mentioned—borax in nocturnal epilepsy; my personal experience of it has been disappointing—chloral more especially when the fits are very frequent and perhaps especially in children. Zinc, preferably in the form of the oxide, is an old remedy, occasionally of value. I can recall one case where it proved of benefit after the failure of everything else. How it acts and what are the indications for its use we know as little as our predecessors.

A method of treatment has been advocated which is worthy of much more attention than it has received; this is Flechsig's treatment by opium and bromide. Increasing doses of opium (the extract) are given for about six weeks; then it is suddenly stopped and full doses of bromide substituted, and these gradually decreased. Very contradictory reports have been published as to the value of this method; my own results with it in young adults have been good, though it is fair to say that I also insist on the closest adherence to the lines of diet and hygiene at the same time. My own practice is to give increasing doses of nepenthe, as it upsets the digestion less than any other preparation of opium, and increase the dose say from 30 minims daily up to 120 or even 200; then stop this suddenly and give 40 to 60 grains of bromide daily, gradually reducing this to 20. As a rule, when the dose is reduced to 30 grains I add iodide and often mercury, and if using the salt free diet when beginning the bromide, give rather smaller doses, 30 to 40 grains a day. I began using opium about ten years ago, long before Flechsig's paper, but without giving the full doses of bromide. My first case was a girl of 19 who had taken bromide for years and was getting rapidly worse till she was almost in a condition of "status epilepticus." Chloral had no effect, so I gave liq. opii. sedat., and pushed this to very full doses. She improved, and I kept up the opium for about two to three months, gradually reducing it; then went on to bromide again. She steadily improved under opium and kept better for some months; then got rather worse, when the opium was again given. This was done two or three times at longer and longer intervals; at the end of eighteen months she got fairly free from fits except a premenstrual one—this got slighter and at last stopped. When I heard of her last she had been free from fits for a little over three years. Off and on since I have used opium freely and more so since Flechsig's method was brought forward. I have not observed the harmful effects attributed to it, and certainly it is worth a trial in suitable cases. Young adults with frequent fits have given the best results. I have not found any benefit from the use of this method in petit mal cases or in cases where there is only an occasional fit at long intervals. In children I have not tried it.

Passing on now to another class of remedies, those that act most through the vascular system. Nitro-glycerine has been shown to be of benefit in some cases, possibly by lessening the peripheral vaso-constriction that in a certain class of cases precedes and perhaps determines the fit. In a series of cases previously under bromide treatment it was found that the fits were reduced in severity and frequency, a three months' trial being made for comparison with bromide treatment. Digitalis, belladonna and strychnine have proved of benefit occasionally. Digitalis I found of distinct benefit in one case of nocturnal epilepsy with a very soft pulse. Belladonna is a very old remedy which at times seems of benefit; it is thought to give better results in children than adults. Probably the coal tar derivatives should be mentioned under this class of remedies. Of these phenazone and acetanilid have proved the most useful, the latter especially; both are of most value in some borderland cases where it is almost impossible to say whether the condition is a bad migraine or epilepsy. I had one such case, a woman who had what one could only call very severe migraine, but the attacks were invariably preceded by a visual aura of a small brick-red cottage with a green fence in front; this went on for some years, then she got short loss of consciousness with the attacks, and later slight twitchings. Phenazone gave most relief in her case.

It has been noticed that epilepsy stops frequently during and after certain fevers. This has been ascribed to the action of toxins formed during fever. Some years ago Whitehead drew attention to the value of a seton in migraine, and in discussing the matter Hare and myself came to the conclusion that the pyrexia was the cause of the benefit, not the counter-irritation, probably through the change in vascular pressure from the fevers. I tried setons in a considerable number of cases of various paroxysmal neuroses, and, as epilepsy in some forms certainly can be classed amongst these, both Hare and myself tried it in a certain number of epileptic cases. In the limited number of cases at our disposal no very definite results could be arrived at; mostly it did no good. In two cases it was distinctly, and so far, permanently of benefit, though in neither case can a cure be said to have taken place. In one girl the fits from being two and three or more a day decreased after nine months to one premenstrual seizure; in the other case, a young woman, a weekly attack decreased after wearing a seton for about fifteen months to an attack once in two, sometimes three months, and has kept at this for now over two years, the attacks themselves having greatly lessened in severity. The method is worth remembering, but if used should be tried in comparatively recent cases; it is not likely to be of use in old standing cases when definite brain degeneration has undoubtedly taken place. In connection with this line of treatment we must not lose sight of the fact that the alteration in blood pressure may not be the only factor in producing an amelioration. It is possible that the product of the action of the organisms causing the suppuration may be a toxin or toxins, which not only cause the slight pyrexia associated with the presence of a seton, but may also in some way act either on the brain cells or else modify the action of some of the internal secretions of the body. We can recall in this connection that some febrile conditions such as erysipelas, measles, pneumonia, etc., decrease or stop the number of attacks in epileptics, probably through the action of some toxin either on the blood pressure or by some direct action on the cerebral cells. In this connection it is interesting to note that some fevers, as for instance scarlet fever, increase the number of attacks. Based on these facts attempts have been made to cure the disease by either inoculating the patient with the organism of a definite febrile condition such as erysipelas, or injecting an antitoxin. These attempts have not met with sufficient success to warrant their continuance. Proceeding on the same line of thought attempts have been made to influence the disease by the injections of serums from epileptics or from rabbits which had received injections of epileptic serum; so far these experiments have been fruitless, but they go to prove that there are internal secretions of the body that modify the action of the brain or vasomotor system in producing epileptiform attacks. Thymus, for instance, increases the number of fits; thyroid extract also has done so in some instances. In connection with this it is of interest to note that it has been observed that an epileptic with enlarged thyroid had his fits decreased as the thyroid reduced in size. This leads us on to the theory—it is not yet sufficiently worked out to be called a fact—of the rôle of the various organs producing internal secretions on blood pressure and secondarily on epilepsy. I refer to the theory of the conjoint control of the adrenals, thyroid and pituitary body on blood pressure, probably through the relative balance of their secretions. However, from the point of view of treatment these researches, though interesting, are not of practical value except that they warn us not to give adrenalin, and thyroid only with great caution. Passing on now to other toxæmias, the most important source of such poisons is the intestinal tract where the product of some faulty metabolism may be either some loss of balance of the normal products of digestion or else an abnormal chemical compound, the action of which, either through the vasomotor system or by direct action on the cells of the brain, may precipitate a seizure. This toxæmia is most often noticed in infants and children with comparatively unstable brains, less frequently in adults. Another factor may be added to the toxæmia, that of reflex irritation by solid and irritating particles of food being present in the intestinal tract. Irritating food in the stomach rarely does harm; it is when it has left the stomach and got into the intestines that trouble begins. In these cases washing out the bowel is of the greatest value. This acts in two ways: by getting rid of an irritant material and the toxins resulting therefrom, and also by altering the blood pressure in the splanchnic area and so altering the general systemic blood pressure. It is well to remember that in the status epilepticus of adults as well as in the convulsions of children washing out the bowel is of value. We have few means of gauging the intensity of intestinal toxæmia—persistent occurrence of indican in the urine is very suggestive—and in these cases attention to diet and perhaps drugs is strongly indicated. It may be that one of the reasons mercury is useful in epilepsy is its action as an intestinal antiseptic. Salol and the sulphocarbolates may be useful; a case recently under my care was more benefited by full doses of sulphocarbolate of soda than anything else he had taken.

Passing on now to the last division of our classification, the group of reflex cases, we are confronted with the difficulty of recognising whether a given source of irritation is the cause of the disease, or is only a source of possible irritation occurring in an epileptic. In the latter case removing the source of irritation will not cure the disease. That reflex irritation will cause fits there is plenty of direct proof, as for instance the case quoted by Osler of a man with a testicle in the groin, pressure on which caused fits; removal of the organ cured him. Or, again, of a man with a piece of glass imbedded in his arm near the median nerve; pressure on the site of the fragment caused fits; removal of the glass cured him. Certain common sources of irritation are well recognised, such as worms in the intestinal tract. Here treatment directed towards their extinction cures the epilepsy. Phymosis is a well recognised source of irritation; occasionally circumcision has caused cessation of the disease. Various refractive errors have been adduced as being a reflex cause of epilepsy; but it is certain that treating the error of refraction has very rarely cured the disease, though no doubt a large percentage of epileptics have errors of refraction: for instance, in 71 epileptics examined by Gould, only three had normal refraction. In this connection it may be stated that high errors of refraction may be one of the "stigmata of degeneration" that are found so often in intractable epileptics.

Various conditions of the upper respiratory tract appear at times to act as sources of reflex irritation. Cures of epilepsy have been recorded after removing adenoids and tonsils and treating various abnormal conditions of the nose, such as septal deflection and conditions causing nasal stenosis. Occasionally the source of irritation has been in the ear, and operation has resulted in cure; but in all these cases we have to bear in mind the mental effect of an operation—the curative effect of operation *per se*, as it has been termed. Many factors, mental as well as physical, enter into epilepsy; hence the divergent methods producing similar results. However, I think we may safely say that when a definite lesion that may be a source of reflex irritation is present, it is certainly wise to treat it—if not the main cause of the disease it may supply a source of added irritation.

The most important factor in the treatment of epilepsy is the general hygiene of the patient—his food and his daily life. Now, in considering the question of general hygiene let us turn for a moment to a consideration of the other paroxysmal neuroses—migraine, asthma, and the like. Epilepsy in many ways may be taken as one of this series, and the one most intractable to treatment. If we find a certain course of life beneficial in one or more members of the group of paroxysmal neuroses it may give us a clue as to the methods best calculated to give relief in epilepsy. If we classify a considerable number of cases of migraine and asthma we shall see that the greater number of our patients will be town dwellers, and also town dwellers living sedentary lives. If country people they will be as a rule either women living an indoor life, or men no longer engaged in active pursuits. Enquiring as to the food they eat, we will find as a rule that those living sedentary lives in this climate tend to lessen their meat and increase the carbohydrate element in their food. We will again note the fact that men training nearly always lose their migraine, and in this connection note that a training diet contains a considerable quantity of proteid and diminished carbohydrate constituents. We will also note the rarity of migraine and asthma amongst men living hard outdoor lives, and the food of those men will be meat, bread, and limited vegetables. Hence we may deduce the fact that a life of hard physical exercise, with a mixed diet, with proteid constituents preponderating, should be the most suitable diet for epileptics. How is this borne out in practice? Experimentally no difference was noted between patients on pure proteid and pure vegetarian diet in a small series of cases that were tried, but on the same mixed diet a marked difference was found between cases on forced exercise and those taking little or none. For instance, at the Craig Colony for epileptics, the influence of muscular work was seen to be so marked that rainy days, Sundays, and holidays doubled and sometimes trebled the number of fits observed. I have already referred to the temporary exclusion of salt from the diet. Some observers think that the number of fits lessen on the salt-free diet; most, however, consider that the diet is only of value when associated with the administration of smaller doses of bromide. Certainly it is a useful method, but must not be employed for too long at a time—probably two weeks' salt free diet, followed by seven to eight weeks' ordinary diet is a good proportion. The other food constituent I am in the habit of forbidding is sugar. In a case now under my care, on the same dose of bromide, iodide and mercury, the fits lessened from an average of four a week to two in the last three months, and the improvement began the week after sugar was absolutely excluded from the diet. Now, as to the times at which meals should be taken. It is usually advised that breakfast and dinner should be the heaviest meals, tea a very light meal. Now and then a patient has fewer fits if given some supper shortly before retiring, and several times I have noticed the good effects of giving food, espepecially hot food or drink, before getting up in the morning. One epileptic I knew for years used to have a fit just after rising in the morning. Then he took to having some hot whisky and water in bed before he got up, and this kept his attacks in abeyance for many years. His son began to get fits when a young man, usually after he got up and had a bath. He took to having hot water or hot milk and water before rising, with the same good result as in his father's case. In both these cases the vaso-motor changes consequent on rising and getting the surface of the body chilled were the probable determining causes of the fit, and the splanchnic dilatation consequent on the hot drink was the inhibiting cause. Another point of some importance is the amount of sleep an epileptic should have. I am inclined to think the time in bed should be cut down to a minimum, and as little sleep allowed as is requisite for health, and this holds true especially in nocturnal epilepsy. A young man I treated for many years for nocturnal epilepsy got well to a certain point, and then remained stationary till his sleep was reduced from nine to six hours, with the result that for the next year he had a fit once in three months instead of an average of one a month. He has noted since that if he spends on an average over 6½ hours in sleep for some days, in a week or two he is certain to get a fit, other factors such as exercise and food remaining constant.

Hence, we may lay down the following rules:—Physical work as hard as can be done, and in this connection we may note that fits are not so apt to occur during exercise as afterwards when at rest; a mixed dietary with proteid preponderating, sufficient in quantity to maintain the body weight at a level standard if it is already at normal, sufficient for an increase of weight if below normal, but on no account an excess of food, which should be salt-free at intervals; sleep to be cut down to a minimum, so that the patient gets to sleep almost at once on going to bed, and is made get up at once when he wakes. If liable to morning fits, warm drink or some food before rising.

Now as to the mental work of epileptics, one is often asked about children and young adults if schooling and mental work is harmful. I think not, provided that physical exercise is not evaded, and in order to get the amount of exercise requisite the mental work usually has to be somewhat curtailed, but excessive mental effort in a child or young adult usually results in loss of weight, and this in an epileptic will coincide with an increase in the number of their fits. The brain condition of many epileptics is in many ways peculiar, and needs very careful studying in order to arrive at the best mode of life suitable for each case. We all know the peculiar epileptic expression, the "setness," the want of the finer lines of expression, and their brains are often the same, though some of the most powerful minds the world has known have been epileptics.

The late Dr. Gawen Sutton summed up the principles that guide us in treatment when he said: "In epilepsy we have to do our utmost to keep the circulation of the brain working evenly. Day by day, as we watch epileptics, we are impressed how peculiarly set they are in ways of looking at things and of doing things. We see that this setness of their thoughts and actions hinders breathing and circulation more and more, until at last the patient falls down in a fit."

(Read before the Queensland Branch of the British Medical Association.)

RETRODEVIATIONS OF THE UTERUS.

By T. G. Wilson, M.D., Ch.M. (Syd.), F.R.C.S. (Edin.), Assistant Gynæcologist, Adelaide Hospital.

One of the most striking features in the recent literature on the subject of retrodeviations of the uterus is the number of writers who maintain that those symptoms, which we have hitherto been accustomed to look upon as being due to some backward displacement are caused not by this displacement but by some existing complications. One writer[1] at the recent Pan-American Congress at Panama maintains that there is no normal position for the uterus, and that, whatever the position of this organ, it is only on the supervention of some complication that symptoms manifest themselves. On the other hand, there are authorities who maintain that a retrodeviation is essentially a pathological condition, and requires treatment whether there are any symptoms directly referable to it or not. Thus, W. D. Haggard,[2] Professor of Gynæcology at the University of Tennessee, in a recent address on this subject, says:—"To disregard a case of retrodeviation simply because it is giving rise to no symptoms at the time, is comparable to disregarding many cases of renal and cardiac disease, gallstones, and errors of refraction, etc., which are often discovered by accident, and to assume that because they are causing no symptoms at the time that they will never do so . . . that inherently the causes which produce the retrodeviation will also engender complications . . . that there is always the element of infection to be considered in the female pelvis, and it is this element of infection that determines the presence or absence of complications, such as adhesions, etc."

Certainly when a uterus becomes fixed in its retrodeviated position we may consider that the fixation is an important element in the symptomatology, and whichever standpoint we take, the question of whether the uterus is fixed or free is a most important factor from the point of view of treatment.

On going through the notes of 900 consecutive gynæcological cases seen recently, I find that the uterus was in a position of retrodeviation in 153 cases, or a frequency of 17 per cent. Of these 153 cases, I have noted that in 39 cases the retrodeviation was a result of, or coincident with, some degree of prolapsus uteri secondary to pelvic floor weakening. Of the remaining 114 cases, in 69 the retrodeviation was complicated, leaving 45 cases, or 5 per cent. of the total number, in which the uterus was freely mobile and could be replaced in a forward position. I have noted the symptoms in these 45 cases with a view of determining whether they were to be considered as due to the retrodeviation or to some complications present. In 19 cases the symptoms the patients complained of were more directly referable to some accompanying condition—endometritis, retained decidua, etc.; while of the remaining 26 cases, in whom there was no other abnormal condition present except the retrodeviation, I found that in 23 cases the symptoms complained of were apparently directly referable to the retrodeviation itself, some at least being produced mechanically by the position of the uterus and adnexa.

In regard to such symptoms as menorrhagia, metrorrhagia, etc., while we must consider these as being directly referable to the condition of the endometrium, we must admit that, in the majority of cases, such complications cannot be effectively treated without at the same time rectifying the backward displacement of the uterus; and whether we are to consider a retrodeviation without symptoms as pathological or not, it would seem as if the patient's general health gets below par, and if any infective condition, endometritis, etc., arises, the retrodeviation becomes an important factor in exaggerating and keeping up the condition, and therefore demands active treatment.

The treatment of those cases which are coincident with prolapsus uteri will naturally be from the point of view of the prolapse, and any method which aims at correcting the retrodeviation, without at the same time restoring the integrity of the pelvic floor, will be doomed to failure, and for this reason I purposely exclude such cases altogether, in considering the treatment of retrodeviation proper. In regard to the treatment of mobile retrodeviations by mechanical means—*i.e.*, pessaries—I am quite aware that amongst many gynæcologists pessaries are considered a thing of the past, and if the condition requires treatment at all, that operation is advised; but I cannot help thinking that there are certain cases where the pessary has a distinct sphere of usefulness and should be the method of choice. I refer especially to cases of mobile retrodeviation occurring after confinement, in whom a well-fitting pessary will keep the uterus in a forward position and help to prevent a long convalescence due to subinvolution. I have followed up enough of these cases to convince myself that after a time the pessary may be discarded without the retrodeviation recurring. This period after confinement has been aptly termed the "psychological period of the pessary."

With regard to the treatment of fixed retrodeviation by massage after the combined vagino-abdominal method of Brandt. This method has never gained any foothold in English-speaking countries, and the objections to its use are fairly obvious, but it has been extensively practised in Continental hospitals, and while working in Professor Chrobak's clinic in Vienna I had some chance of seeing the method of procedure, and examining the patients before, during, and after the treatment. Naturally, it is all-important that the cases should be carefully chosen, and when this is done it is quite certain that good results can be obtained. I have seen many cases with fixed retrodeviations who would certainly here be advised to have operative interference, in whom after several sittings the uterus has been got into forward position and kept there temporarily by means of a pessary, and after a time it has been possible to discard the pessary without recurrence of the retrodeviation.

The operative treatment of retrodeviation presents a large scope, and the number of operations suggested is a fairly good index that no one of them is generally applicable. Indeed it is rare to go through a Gynæcological journal without seeing some new operation or modification of some old operation designed for the cure of this condition. Probably the most usual and most favoured operation at the present time is some form of ventrosuspension or ventrofixation; and as regards the after-result, the cases I have had a chance of following up would indicate that the distinction between these two operations depends chiefly on whether the ligatures used for the suspension or fixation are absorbable or not, as a ventrofixation done with an absorbable material, as catgut, in the course of a few weeks becomes practically a ventrosuspension. Apparently tendon, either the formalin prepared or the ordinary biniodide tendon, is very often not absorbed, or at any rate for such a time as to make it justifiable to consider it as an unabsorbable material. I have frequently seen tendon which has been buried in the abdominal cavity for periods up to two and even four years, which was apparently unaffected at the time of a second operation, and on cutting sections through such tendons little or no leucocytal infiltration was to be seen, and as regards tensile strength it did not seem to have suffered at all. Catgut is always absorbed quickly, so that probably the adhesions formed round an absorbable ligature like catgut will tend to be less dense than round an unabsorbable ligature like silk or tendon, round which the adhesions, being denser, will naturally persist longer, and not tend to disappear while the foreign body remains. As a result of these operations the uterus is changed from a pelvic to an abdominal organ, for a time at least, and from being a freely mobile organ it is made into a more or less fixed one; and we have to consider what the result of this fixation will be should the patient become pregnant, and also whether the operation will permanently keep the uterus in its forward position. In considering this operation there are such a number of modifications of doing it that it becomes difficult to compare them. While some operators insert their sustaining sutures on the anterior surface of the uterus, others use the fundus; and others, again, following Kelly's original suggestion, insert the sutures on the posterior surface of the uterus in order to allow the intra-abdominal pressure to act on that surface. Then some operators use unabsorbable sutures, silk, silkworm gut, etc., and others use catgut always. There are very different views, too, as to the ultimate result of the operation. The question of what really does happen to the suspensory ligament after a ventrosuspension is an interesting one, and I have kept notes of cases I have examined at varying periods after this operation, and also of cases where it has been necessary to reopen the abdomen at a subsequent operation. In 13 of these the second operation was done at the Adelaide Hospital, where I have assisted at the operation, and I am indebted to Dr. Hamilton for these cases. First, in those cases where the ventrosuspension was done with tendon or silk. I have notes of eight of these, six done with tendon and two with silk, and all of whom I have examined at periods from six months to five years after the first operation. In six of these cases the uterus was still in a forward position, and a definite suspensory ligament was palpable on imanual examination. In three of these six cases the abdomen was reopened, and the actual condition of the ligament could be observed. Two of the ligaments were solid and firm, suggesting that they might cause trouble by preventing the expansion of the uterus during pregnancy. The third was much thinner and stretched out to a length of two inches, and did not apparently take any active part in keeping the uterus forwards. In the other two cases no suspensory ligament could be felt, but the uterus was again in a position of retrodeviation. One of these patients had had a full time child since the original operation, and the abdomen had to be again reopened on account of further adnexal inflammation. In this case also there was a thin, stretched-out suspensory ligament stretching from the old abdominal incision to the fundus uteri. So that in seven out of eight of these cases there was a suspensory ligament left as a result of the operation, though in two cases it had apparently stretched to such an extent as to cease to be of service in holding the uterus forwards.

These are the only cases I have been able to follow up which have been done with tendon or silk, as for the last four years most of the ventrosuspensions at the Hospital have been done with catgut. I have notes of 27 cases in whom a ventrosuspension was done with catgut, and whom I have examined at periods varying from six months to four years after this operation.

First, in regard to the position of the uterus. In 11 cases the uterus was in good position at the time of the second examination; in 16 cases it was again retrodeviated. In none of these cases examined after six months was any suspensory ligament to be felt on bimanual examination. Of these 27 cases the abdomen was re-opened in 17 of them, and the actual condition of the pelvis could be ascertained, and in none of these cases was any sign of a suspensory ligament discovered. The shortest period after the first operation that the abdomen was reopened was four months. Six of these cases had had the anterior aponeurosis included in the suspensory ligatures, so that the original operation was a fixation. In the ten cases which were not reopened it is impossible to say for certain whether any sign of a suspensory ligament would have been found, but it is certainly remarkable that in all the cases that were reopened there was no suspensory ligament found. In some of these cases the catgut used was formalin catgut, in others biniodide catgut, and in others iodine prepared catgut. While I have recorded these results as I have found them, I naturally realise, from hearing of the experience of others, that sometimes a suspensory ligament does persist after a ventrosuspension done with catgut, and especially if there has been any suppuration in the abdominal wound. Taking these two series together, we get 35 cases who had had a ventrosuspension done, and at varying periods from six months to five years afterwards, the uterus was found not to have retained its forward position in 18 of them. While agreeing that it is not a fair criterion to take 18 out of 35 cases, as during this period there were a great many other cases who did not report themselves and who were presumably well, and also admitting that in some of these cases the retrodeviation had recurred as the result of a fresh inflammatory process, the fact of finding that the operation had not fulfilled its object in such a number of cases indicates that a ventrosuspension as generally done, and especially when absorbable ligatures are used, cannot be regarded as really effective in permanently maintaining the forward position of the uterus.

The above results would indicate that a ventrosuspension done with catgut does not fix the uterus permanently to the abdominal wall, but merely holds it in a forward position for some months, and so gives the uterine supports time to regain their tone, while when an unabsorbable ligature is used the uterus as a rule is definitely suspended by a cicatricial ligament. It seems rather difficult to believe the statement we often see that such a ligament will stretch with pregnancy and involute after delivery, and so still hold the uterus forwards. I have attended five cases in confinement who have had a ventrosuspension done, one with silk, one with tendon, and three with catgut, and in all these cases the confinement was easy. Four other cases who had had ventrosuspensions done, and who have had what they described as normal labours, are included in these 35 cases. Of these nine cases in only three was the uterus in a forward position after the confinement, which is instructive, as indicating the importance of parturition as a causative factor in retrodeviations, and also how unlikely it is that the suspensory ligament, if one should be present, will stand the strain of the growing uterus during pregnancy, and still hold the uterus forwards after confinement.

It is generally admitted that a ventrofixation proper is not a justifiable operation in a woman who is likely to have children, though even now one constantly sees accounts in the journals of cases where Cæsarean section has been necessary when such patients have gone to term. In regard to this, it is of interest to note that Andrews,[3] in a recent review of the effects of ventrofixation and ventrosuspension on subsequent pregnancy, has collected 395 cases of labour following these operations, and of these there were 20 cases where Cæsarean section was performed as a direct result of difficulties causes by the previous operation. Of these 20 cases, 14 followed ventrofixation and six followed some form of ventrosuspension. He comed to the conclusion that the method which caused least difficulty with subsequent labour is a ventrosuspension, though he adds that this operation has the theoretical objection that the suspension may not be permanent. In a great number of these cases the original operation was done on account of retrodeviation accompanying prolapsus uteri.

While the position of the uterus after the removal of the ovaries seems to be of little consequence, if it is wished in such a case to put the uterus in a forward position, there would appear to be no objection to a ventrosuspension done with catgut; but in those cases in which the abdomen is opened and the ovaries are not removed, what is to be done to correct a retrodeviation ? If a suspension with catgut be done, judging from these cases, we can never tell exactly what will hapen afterwards. If the uterus remains forward, well and good; but if not, can we ask the patient to have another suspension done every few years or after each confinement ? Or are we to use an unabsorbable ligature, and aim at having a firm suspensory ligament left, which may cause trouble with a subsequent pregnancy, or if not, may stretch so as to cease to be effective as a sustaining ligament, and which will remain as a potential source of danger from giving rise to internal strangulations, etc. ? That this is a real possibility we have only to read the accounts of such cases recorded by Jacobs,[4] Leopold,[5] Rufus B. Hall,[6] Thomas,[7] Lindtors,[8] and many others. Is there no other method by which the uterus can be kept forwards without leaving a permanent source of danger in the abdominal cavity ? The different methods that have been suggested by the vaginal route do not seem to have been very effective, though they all have their warm advocates. Shortening of the so-called utero-sacral ligaments, vaginal shortening of the round ligaments, Pryor's operation and vaginal fixation may be mentioned, though this last method is now generally considered as unjustifiable in a child-bearing woman. The abdominal route is at present the favourite one, at any rate when the condition is complicated, for as a rule it is these complications and not the retrodeviation that demands a section. For an uncomplicated case, if it requires surgical treatment, the Alexander-Adams operation is certainly the method of choice, and some operators[9] apparently prefer to finish up with this operation after having dealt with the pelvic condition through a median incision, though the extra element of the time required must be a disadvantage. Noble's suggestion of using a transverse incision, after the method of Pflannelstein, in these cases, and after dealing with the pelvic condition, shortening the round ligaments extra-peritoneally from the extremities of the original incision, would seem to be the ideal operation, at any rate in cases where a large abdominal incision is not required. The different methods of shortening the round ligaments intra-peritoneally, Wyllie's, Mann's, and Baldy's operations, while they all have the, to my mind, theoretical objection of, leaving the weakest part of the ligaments—the part in the inguinal canals —as one of the points of fixation, certainly do maintain the forward position of the uterus, and apparently do not interfere with subsequent pregnancy. Gilliam's operation, which has been warmly advocated by many American gynæcologists, is open to the objection that an opening is left on either side where a coil of gut may become strangulated, though it has been suggested that the parietal peritoneum may be sewn to the round ligament in order to obliterate these two spaces. All these operations are more or less on trial, and until the ultimate results as regards their permanency, and especially the effect of subsequent pregnancy, are more fully recorded, it is impossible to lay down any fast rule; but granting that they do not cause interference with gestation and parturition, when surgical interference is adopted for the cure of a retrodeviation in a child-bearing woman, the utilisation of the round ligaments to affect this certainly seems to be the most rational procedure.

(Read before the South Australian Branch of the British Medical Association.)

REFERENCES:

1. Waite, *Medical Record*, February 4th, 1905.
2. Haggard, *American Gynæcology*, September, 1903.
3. H. R. Andrews, *Journal of Obstetrics and Gynæcology of British Empire*, August, 1905.
4. Jacobs, *Deutsche med. Wochenschrift*, 1894, p. 489.
5. Leopold, *Monatschrift fur Geburts, u. Gyn.*, July, 1895.
6. Hall, *Journal of Medical Association*, 1899.
7. Thomas, *American Gynæcol. and Obstet. Journal*, February, 1901.
8. Lindtors, *Centrablatt f. Gynæ).*, *Bd. XXII.*, p. 414.
9. Cleveland, *American Gynæcology*, July, 1902.

AN EPIDEMIC OF ACUTE DYSENTERY OCCURRING AT RUTHERGLEN.

By John R. Harris, M.D., B.S. (Melb.)

RUTHERGLEN is situated on a group of small hills running almost north and south, and at its centre is very well drained. At the east and west ends of the town, however, the land is flat and receives the drainage (from the higher portions), which gravitates east and west and finally empties itself into two unbricked open drains which lead nowhere in particular, emptying the whole of the drainage of the town into the water tables of the shire roads, thence to be carried away with the flood waters after heavy rains into the creeks of the watershed of the Murray River. All the important streets are served with brick channelling, and these channels are sedulously kept clean; not so the open main sewers, however, which are only cleaned out at long intervals, and only then when they have become so foul that it is impossible to delay longer.

The water supply is derived from the Murray River by a pumping scheme. The water is delivered into a large storage tank without filtration, and from this is allowed to gravitate into the street mains. This ensures a good pressure. There is no provision for cleansing the service mains, with the exception of occasionally opening the scour valves. For the greater part of the spring and summer months of this year the pump at the river was in very bad order, and for several hours in the 24 for many weeks the mains and service pipes were empty. This allowed of the opening up of every fire plug in the area, with leakage of street dust and filth into the mains, and the accumulation of gases in the pipes.

The general health of the population during the period of the epidemic, which started on January 21st and ended in June, was only marked by one characteristic, viz., the abnormal liability of the people to gastric and bowel complaints. There was nearly twice the number of typhoids to the average record of an ordinary year. The number of cases of summer diarrhœa in children was abnormally high, and synchronous with the appearance of dysentery was a gastric sickness, which came on with sharp epigastric pains, persistent vomiting (often of a bilious character), and a rise of temperature frequently as high as 102° F. This latter, which for want of a better name I called acute infective gastritis, did not seem to be related in any way to the bowel disease ; I was not able to connect the one with the other, although I watched carefully to find a clinical relationship. Immediately following in the footsteps of the dysentery and acute infective gastritis came a well-defined influenza, accompanied by bronchitis, broncho-pneumonia, and acute croupous pneumonia, which attacked the community pretty generally and did not spare in any way those just convalescent or recovering from the bowel and stomach diseases ; hence, I came to the conclusion that neither of the two former were in any way related to the influenza germ in their causation. As an example, I will give you an account of what occurred in my own home. My family consists of three sons, aged respectively seven years, four years, and one month. On April 21st my second son was attacked with epigastric pain and persistent vomiting, with a rise of temperature to 101° F. The attack lasted three days and subsided. On April 23rd my eldest son, who had been sleeping in the same room with the former, was similarly attacked, and synchronously the baby began to run a high temperature, but without vomiting. Exactly three weeks later all three again became ill, first with a croupy cough, which gradually extended downwards and became a severe bronchitis in each case, with an evening temperature up to 102° F.

The epidemic of dysentery lasted from January 21st to June 6th. During this period I saw 53 cases, 45 of which were typical cases of dysentery, the remaining 8 being either gastric cases or diarrhœas. Of the dysenteric cases, 29 occurred within the water supply and drainage area of the borough, 10 cases occurred at a small township three miles from the borough, but in close proximity to the nightsoil depôt, 7 cases occurred amongst people who were constantly visiting and staying in the town for considerable periods of the day, and the remainder were cases which developed owing to direct contact with sick relations and their dejecta, and occurred in the country within a radius of six miles from the town. I saw as many as four cases in one house, and in many houses I saw more than one case. In one house I saw one case of true dysentery, and immediately following this case I saw in the same family three cases of febricula with neither diarrhœa nor vomiting. Out of the 53 cases, 7 cases occurred in children from six months to two years old, with four deaths ; 11 cases occurred in children from two to eight years old, with no deaths ; the remainder occurred at ages varying from 15 to 79 years, and of these, three females, aged respectively 20, 22 and 37 years, and one male, aged 79, died.

Twenty-six males and 27 females were attacked, the disease showing no preference for sex. There were no marked prodromal symptoms, with the exception of some loss of appetite and a white-coated tongue.

The onset was ushered in with colicky pains in the abdomen, and thin, liquid, offensive stools, which in most cases rapidly progressed into typical dysenteric motions, consisting of large quantities of mucus, pus and bloody fluid. As the attack developed the stools lost their fæculent character and odour, but developed a characteristic bowel odour, very intense, nauseous, and disgusting. There was constant pain in the lower portion of the back, with sense of fulness in the rectum, and great tenesmus. There was general tenderness along the course of the large bowel, but the most tender spots were over the sigmoid flexure and the cæcum. There was a constant desire to use the bed-pan, and the stools became as frequent as one in every 20 minutes. The tongue remained moist, but coated with a thick, white fur in all the cases with the exception of three. In these it became dry and brown. The temperature in nearly every instance was very moderate, and ranged from 99·4° to 100·5°. In one of my fatal cases during the last three days of life, and on the 13th day of the disease, the temperature rose to 104° F., the tongue became dry and brown, the extremities became extremely cold, there was subsultus and picking at the bedclothes, and a general typhoid state, merging into unconsciousness. The pulse rate varied according to the severity of the case. It ranged from 90 to 120 in all the favourable cases. In all the fatal cases the end came with collapse and absolute failure of the pulse, with cold extremities, dry retching, low delirium, sleeplessness, gaseous eructations, and hiccoughs. The abdomen, as a rule, was not distended, but in two instances towards a favourable termination it became greatly distended. Vomiting was a rare symptom, but the patients complained of wind, with gaseous eructations in nearly every case. The stools were composed of bloody fluid, mucus and pus; sometimes they had the characteristics of sloughs, were usually scanty, and varied in number from 24 to 60 in 24 hours. As the disease subsided, the bloody fluid first disappeared, whilst the blood-stained, glairy mucus still persisted; then the mucus became less, and the stool became watery, with small quantities of fæces and undigested milk curds and a more marked fæculent odour. Occasionally one would see an almost perfect fæcal motion passed with the reappearance almost immediately after of many true dysenteric stools. Frequently, also, motions would be passed consisting almost entirely of pus.

The reappearance of fæces in the stools, the disappearance of the blood and the lessening of mucus always indicated the commencement of recovery, even where the general condition was still bad, and the abdomen tender and distended, and temperature still varying high. Finally the stools became normal in colour, but still very fluid, and mucus continued to be passed in the worst cases up to the 31st day of the complaint. During convalescence they varied in number from two to five in 24 hours, and it was observed that the slightest increase in diet frequently produced a recrudescence of the diarrhœa with passage of mucus and often blood for considerable periods after the apparent subsidence of all symptoms.

The duration of the attack varied greatly. In many instances suitable treatment rapidly acted, and cases that threatened to be severe quickly subsided. All these favourable cases were seen early. In all the well defined and well developed cases it was noticed that the patient stood the attack well till about the sixth day. From thence onwards the pulse became poor and the patient complained of great weakness and developed an anxious expression of countenance, and if no improvement occurred by the eighth day they usually collapsed and succumbed within thirty-six hours afterwards. If, however, the favourable characteristics occurred in the stools above mentioned, about the sixth day it was usually safe to prognose recovery, although the pains in the abdomen, the rise of temperature and the general state of the patient continued to be serious. In all these well-defined cases the duration of recovery was long; none of them were out of bed before the twenty-first day, and the loss of appetite, coated tongue, indigestion, and liability to diarrhœa and general weakness lasted well into the sixth week. The termination of this epidemic disease was in every case of recovery satisfactory. In only one instance have I seen a tendency to chronic diarrhœa and dyspepsia, and although this has lasted from Easter to the present time I am not without hope that this patient will ultimately regain her vigour. There were no other sequelæ noticed.

The prognosis depends on the severity of the attack. In all the milder cases there was no trouble in guaranteeing recovery. In the severer cases the prognosis is very grave, and when collapse intervenes the chance of recovery is quite hopeless. A great deal depends on the vigour of the patient. In my adult deaths there were certain points in the family histories which tended to reduce the vitality of the patient prior to the onset of the disease. In A.B. there was a marked maniacal history in the family, with an immediate history of intense headaches and sleeplessness just prior to the onset of dysentery. B.C. was only 37 years of age and was the mother of seven children, her last child being only two months old, and she was markedly strumous and suffered from middle-ear trouble. C.D. was also a strumous patient, had only been confined six weeks prior to the attack, had no means of getting suitable nursing or food; and F.G. was 79 years of age, and therefore had no hope of withstanding the disease. The babies all died of collapse with vomiting early in the attack.

Treatment.—The patient should at once be put to bed and not allowed to move out of the recumbent posture. All stools should be passed into a slipper bed-pan, which should be suitably disinfected, and the dejecta should be at once removed from the room and burned. The bedroom should be large and well ventilated, and the temperature should be kept equable. Mustard plasters to the abdomen relieve the colicky pains and tenderness, and likewise warmth to the abdomen in the shape of dry heated flannels are very comforting to the patient. Warm boiled milk is the suitable diet, although I allowed raw meat juice, egg albumen, then arrowroot, and sometimes mutton and chicken broth. Starch enemata greatly reduced the tenesmus, and these were ordered as often as every four hours.

I used bismuth, opium and mist. cretæ with pulv. Doveri at the commencement of the epidemic. In many cases they acted admirably, but in the severest cases they had not the slightest effect in reducing the character or number of the stools. My two first deaths occurred under this treatment with the addition of plain pulv. ipecac. and pulv. ipecac. co. and calomel. It was after having these two failures and when the epidemic had reached its greatest severity that I turned my attention to magnesium sulphate. I found the latter a most invaluable remedy and trustworthy in every instance in which I used it. I ordered it in all my severest cases and found it to act like a charm. In many cases which threatened to be exceedingly severe it quickly reduced the dysenteric stool to a watery fæculent one and gradually reduced the number to safe limits. It also quickly reduced the tenesmus, and in many instances caused all symptoms to subside within twenty-four hours.

In the severest case that recovered I had an exceptional opportunity of testing the two forms of treatment. I first used a couple of doses of castor oil, followed by a mixture of bismuth chalk and opium, and backed up by 8 grain doses of Dover's powder every six hours. These remedies had no effect at all. I then added to the treatment starch enemata, large irrigations of saline solution, and an emulsion of small doses of ol. ricini. I continued this line of treatment for six days without the slightest benefit. The pulse began to get poor, the tongue was thickly coated, the abdomen was very tender, the temperature was 101° F., and the facial expression was very anxious, and vomiting had commenced. I now stopped everything and placed her on a single mixture consisting of 30 gr. doses of magnesium sulphate, 10 m. doses of sulphuric acid, tr. bellad. and liq. opii. sed., 5 m. doses of liq. strychnæ and peppermint water every three hours. This immediately acted. It reduced the tenesmus, reduced the blood to nil, quickly reduced the number of stools to safe limits, altered their character entirely, and finally reduced their number from 40 motions in the 24 hours to one motion a day. This patient never used any other medicine, and finally convalesced on mag. sulph. acid.

From this onwards I never used anything else during the epidemic, and the results I obtained were all that anyone could desire. I most undoubtedly consider magnesium sulphate the ideal treatment for this form of dysentery, and would advise all to bury prejudice and give it a fair trial before condemning it or placing the ipecac. treatment before it. I have no hesitation in affirming that it has been the means of saving many lives in my district during the last eight weeks—lives that I would have absolutely despaired of saving under bismuth, chalk, ipecac. or astringents.

Report by Dr. Bull, Lecturer on Bacteriology at the Melbourne University, on samples of Mucoid Stools, Blood, and samples of Water from the Rutherglen Water Supply, sent to the Bacteriological Laboratory by Dr. Harris, with the object of defining the Infective Cause of an Epidemic of Acute Dysentery occurring in the Rutherglen District.

The first sample sent to Dr. Bull was a typical mucoid stool. Unfortunately I asked Dr. Bull to examine for Shiga's bacillus. His first report was as follows:—"I examined your specimen of stool for Shiga's bacillus and isolated a large number of pure cultures of bacilli, all of which differed from Shiga's bacillus in clotting milk very readily in 48 hours. The organisms isolated were all colons." This report appearing to me to be unsatisfactory in the face of the infectious character of the epidemic, I invited Dr. Bull to make a further examination, which he kindly consented to do by inviting me to send him as many capillary blood tubes as I could collect from convalescents and patients still suffering from dysentery, and also another typical mucoid stool. I succeeded in collecting blood from five patients, and I sent a very typical mucoid stool from a patient along with them. Dr. Bull's report on these specimens is as follows:—(The blood tubes he marked as 1, 2, 3, 4, and 5.) "Nos. 3, 4 and 5 gave a positive reaction to the agglutination test. Shiga's bacillus, in a dilution of 1 in 10, well marked in one hour. Nos. 1 and 2 were quite negative in three hours. As certain virulent colon inflammations may yield some reaction to the typhoid bacillus when the blood is added to typhoid cultures, I tested all the 'bloods' with one of our typhoid cultures. Curiously enough 1 and 2 gave a feeble reaction to the test, the other three being quite negative. The two that reacted slightly to typhoid were the two which were negative to Shiga."

On June 26th I received a much fuller report from Dr. Bull concerning his investigations into the causation of the Rutherglen epidemic of dysentery. After apologising, owing to press work, for delay in sending report, he goes on to say:—"I shall only be able to let you have a brief account of my further investigations *re* your interesting cases. The results of examination of your last specimens of intestinal discharge and blood pipettes from the last case received on June 12th are very interesting, definite, and serve to throw further light on previous inquiries. On this occasion I was able by fractional agar cultures to ascertain the presence of a specific bacillus, which outnumbered the ordinary colon bacilli by about 20 to 1. I secured 20 cultures of this organism, and by means of an exhaustive study of six of them I ascertained that I was dealing with a single type of micro-organism possessing very definite microscopic and cultural characters. The bacillus is distinct from typhoid and colon bacilli, and falls naturally into the widely distributed category of micro-organisms known as the paratyphoid or para-colon group, the members of which possess characters which form more or less complete links between typical typhoids and colons. This intermediate group comprises Gaërtner's bacillus of meat poisoning (bac. enteritidis), Shiga's dysentery bacillus, bac. of Hog cholera, etc.

"The bacillus isolated on June 12th resembles most Gaërtner's bacillus, but differs from the latter in not fermenting lactose and being non-pathogenic for rabbits, and I have therefore designated the organism the 'bacillus pseudo-enteritidis.' It differs from Shiga's bacillus in being actively motile and in fermenting glucose, but resembles Shiga's bacillus and the bac. of Hog cholera in producing an alkaline reaction in litmus-milk without clotting. The absence of either acid production or clotting also serves to differentiate from typhoids and colons.

"*Agglutination.*—I find that the bacillus pseudo-enteritidis yields a positive reaction to the patient's blood, as does also the bacillus of Shiga. Colon cultures isolated from the same case yield a negative and typhoid cultures a partial reaction to the same blood serum. I have also tested your own bacillus (bac. pseudo-enteritidis) and a strain of typhoid bacillus with serum from two rabbits immunised against these organisms by subcutaneous injection of pure cultures with the following results:—The anti-typhoid serum yields an immediate positive agglutination result with typhoid cultures and a partial reaction to cultures of bac. pseudo-enteritidis. The anti-pseudo-enteritidis serum yields a positive reaction with the corresponding bacillus and a partial reaction with typhoid cultures.

"*Conclusions.*—1. No Shiga's bacillus was detected in the stools of this or previous cases. 2. A para-typhoid bacillus was present in numbers far in excess of the common fæcal colons in the present instance, the excessive numbers suggesting a causal relationship to the epidemic disease in question. 3. The patient's blood yielded a positive agglutination reaction to the above bacillus, and this observation, together with the fact that a positive reaction was obtained in this and previous cases with cultures of Shiga's bacillus, and a partial reaction in some of the cases to typhoid cultures (reactions which might be classified as group reactions of related organisms), is suggestive evidence of the causal relationship of the bacillus described to the dysentery epidemic in Rutherglen."

In a postscript Dr. Bull goes on to say:—"I am sorry I have no time to include a table and data of reactions comparing this bacillus with typhoid colons (from the same case), Shiga and Hog cholera bacilli, I have recently worked out. The whole of these organisms show certain group relationships. All lose Gram's stain, are asporogenous, and give definite and distinguishing colour reactions by reduction of neutral red in glucose agar and lactose broth media, also with your bacillus vigorous growth on gelatine without liquefaction."

"The results of water analysis are so anomalous that I will not attempt to interpret them, except to say that no light is thrown on the source of infection by the present series of examinations :—1. Source—Hamilton-street (infected) ; micro-organisms, 57·760 per cubic centimetre. 2. Source—Howlong-road (infected) ; micro-organisms, 384 per cubic centimetre. 3. Main-street (non-infected) ; micro-organisms, 187·200 per cubic centimetre. 4. High-street (non-infected); micro-organisms, 158·400 per cubic centimetre. 5. Source—Jeffrey filter cone; micro-organisms, 2560 per cubic centimetre."

Unfortunately, the epidemic for the present has subsided, and I have been unable to send Dr. Bull any further reliable samples, but should a recrudescence occur it is intended to continue the investigations, when a further series of observations and reports may be expected.

(Read before the Border Medical Association.)

ACUTE INFLAMMATION OF THE ANTRUM OF HIGHMORE, COMPLICATING INFLUENZA.

By Richard Jones, L.R.C.S., L.R.C.P.I., Hon. Physician to the Bendigo Hospital, Victoria ; late Physician to and Medical Inspector of Lepers to the Government in Hawaii.

T. Q., aged 59, consulted me for what he described as severe pain and bursting or fulness in the right side of his face. His whole family had been recently attacked by influenza, and he had been attacked about two weeks before. He had ever since a generally severe catarrhal condition of the air passages, accompanied by severe spasmodic cough. There was considerable coryza and watery discharge from both nostrils. On the morning previous to the day he consulted me he felt a sensation of fulness in the zygomatic region, which, as the day went over, became more intense, and by evening was marked by swelling and tenderness on pressure, accompanied by much pain. The tension and pain continued through the night, when it became almost intolerable, and the following day when he consulted me he looked and felt very ill. Coughing, or any attempt to clear the nose, increased the pain and fulness to such a degree that the patient placed his head between his hands with a view to obtaining support and relief. Pain and tenderness was most marked over the swelling in the zygomatic region and to a lesser extent over the temporal, and was absent in the frontal, where pain is so characteristic of chronic antral suppuration. Trans-illumination of the face gave darkness on the right side ; pulse, 100 ; temperature, 101·5° ; tongue very dirty. The right side of the nose was blocked by muco-purulent matter. Upon cocainisation I removed a large plug of mucus from the hiatus semilunaris, and this made way for what I should judge to be at least half an ounce of muco-purulent matter to flow from the antrum. When it ceased to flow I turned the patient's head on the left side, and more drainage took place ; relief was almost immediate. There was now equal translucency of the antra, and I was able to observe darkness of the right pupil, an eye symptom which I have not previously noticed in antral disease, probably through lack of ore careful observation, and which in this case I am not in a position to explain.

Chronic empyema of the maxillary antrum is, as we know, anything but rare, and I think much more frequent than is suspected. The acute inflammatory condition, however, is, I take it, a very rare affliction, although I fancy if one were not on the watch it might easily escape detection in influenza, which is probably the most likely condition in which it may arise. This is the second time I have met this complication in influenza. In the first case I did not diagnose the condition of which I feel now perfectly satisfied existed.

Sanatorium for Consumptives in Victoria.—On the invitation of Dr. Norris, chairman of the Board of Public Health, about 40 members of the Melbourne Medical Association paid a visit to the Government Consumptive Sanatorium at Broadmeadows on December 2nd. The visitors arrived in drags and motor cars, and were conducted over the establishment by Drs. Norris, Drake and Reid. The ideal nature of the situation and surroundings for the treatment of consumption was remarked by all present, and the construction of the tents approved. Members were much impressed with the scientific manner in which the sanatorium is conducted, and the patients presented conclusively demonstrated the curative value of the open-air treatment.

REVIEWS AND NOTICES OF BOOKS.

A Manual of Surgery for Students and Practitioners. By William Rose, M.B., B.S. (Lond.), F.R.C.S., and Albert Carless, M.S. (Lond.), F.R.C.S. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Pages xiv, + 1350, illustrations 500, and 30 plates. Size, demy 8vo. Price, 21s cloth, 25s half leather. 1905.

This is the sixth edition of the well-known surgical manual. The book has been brought well up to date. The opening chapter on bacteriology has been rewritten, and a fresh chapter on surgical technique has been added. Brain surgery, abdominal surgery, and gynæcology have received greater attention than heretofore. The many new plates will make the book still more attractive. This is certainly a good all-round student's book.

An Introduction to Pharmacognosy. By Smith Ely Jeliffe, M.D., Ph.D., Professor of Pharmacognosy and Instructor in Materia Medica and Therapeutics in Columbia University (College of Physicians and Surgeons), New York. Fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Melbourne: James Little. Price, 10s 6d.

This is a work bearing a curious resemblance to the well-known one by Dr. Greenish, but further acquaintance shows that except as regards outward form and general plan this resemblance is only superficial; the matter discussed and the manner of doing so is different. Moreover, it affords a striking contrast in scope to that of Sollmann's text-book, and might be used as a companion volume for home study, for which the pleasant, clear style in which it is written adapts it. We must, however, draw attention to the unevenness characterising more especially the paragraphs headed "Chemistry," which in most cases conclude the descriptions. Considering the amount of space devoted to the cinnamon barks, we would have wished to see some description of the mucilaginous bodies present; but, while this is a comparatively small matter, it is hard to comprehend why more or less half a page is devoted in each case to the constituents of such relatively unimportant drugs as calamus and red sandalwood, whilst those of squills, colchicum, and even aconite are absolutely unmentioned. It is with regret that we note these defects in a work otherwise so excellent in information, illustration, and in those features for which the publishers are specially responsible.

Physical Deterioration: Its Causes and the Cure. By A. Watt Smyth. London: John Murray. 1904. Sydney: Angus & Robertson.

The public attention which was aroused in Great Britain as a result of the recent recruiting statistics may be said to have been the occasion of the appearance of this book from the pen of Mrs. Watt Smyth, whose practical knowledge of the conditions of slum life in the old country makes her an authority on this subject. Several of the chapters contain material which has already appeared in the columns of the *British Medical Journal*, but this does not detract from the interest of the volume as a whole.

The conditions which have been tending in the past century towards physical deterioration are fully discussed. The injurious influence of overcrowding, the defective ventilation and sanitation generally of the poorer parts of the large cities, the deficiency of suitable food for infants and young children, are all emphasised. The powerful influence of alcohol as an agent in producing deterioration of the race is referred to, but no reference is made to syphilis as a potent factor in a certain proportion, though possibly a minor proportion, of the population. But the combined influence of alcohol and syphilis in the parents in producing deterioration in their children is too well known to need any discussion.

The various remedies which have been suggested to meet these causes of physical deterioration are described in detail, and special stress is laid on the importance of the proper feeding of children attending school, and the instruction of schoolgirls in the subject of domestic economy. Some of the instances of child labour which are quoted seem almost incredible in this age, and show to what an extent this evil still exists. The authoress also points out the necessity of medical supervision of school children, with a view to the singling out of those who require special physical exercises, and also to the checking the spread of infectious diseases.

We can heartily recommend this work as an intensely interesting and valuable work on a subject of paramount interest at the present day.

The Theory and Practice of Medicine. By Frederick T. Roberts, M.D., B.Sc., F.R.C.P., London; Emeritus Professor of Medicine and Clinical Medicine, University College, London, etc. Tenth edition. London: H. K. Lewis, Gower-street. 1905.

Roberts' Medicine used to be a standard text-book for medical students several years ago, and we are pleased to renew our acquaintance with the work in the form of a tenth edition. It is now a long time since the ninth edition appeared, and great advances have been made in all directions of scientific and practical medicine, and it is highly gratifying to find the work brought so fully up to date by the exertions of the author himself, who has retired from all active work on the staff of his old hospitals, the Brompton Hospital for Diseases of the Chest and University College Hospital, London.

We think that the omission of the earlier parts of the work, dealing with general pathological principles, would have been disinctly advantageous. The illustrations are hopelessly out of date, and so much has been done in this department in quite recent times that it is impossible to give a satisfactory summary of it in short chapters; moreover, the student who takes up this book as his text-book on medicine has already studied the subject of pathology in the special text-books on that subject. The author lays stress on the fact that this book contains his own personal experience and opinions on a large variety of subjects which he has had special opportunities of studying. Naturally, the sections on the diseases of the chest are the fullest and best. Several new chapters have been added, but the section on diseases of the skin has been intentionally omitted.

Taking the work as a whole, it is clear, concise, and eminently practical throughout, and can be recommended as a most useful text-book on the subject of the principles and practice of medicine.

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH DECEMBER, 1905.

MEDICAL REGISTRATION.

ACCORDING to a statement in the lay press, an Amending Medical Bill is in course of preparation, and, we were told, was to be introduced into the recent session of the New South Wales Parliament. But the session has closed, and no Medical Bill has appeared. Similar action is, we understand, being taken in Victoria, and a Medical Bill was circulated among members of that State Legislature, the object of which was to remedy certain inconsistencies in the existing law relating to the qualifications and registration of medical men. Probably the main objects of these two measures are the same, namely, to protect the general public against fraudulent assumptions on the part of quacks and unqualified practitioners generally, and to protect the rights of local members of the profession by insisting on reciprocity in medical registration, and to provide for the removal from the register of the name of any medical man who may be proved to be guilty of "infamous conduct in a professional respect."

In New South Wales the Medical Board has been empowered by the Amending Medical Act of 1900 to refuse to register any medical man who could not furnish proof of having had five years' training, and this necessarily excluded from local registration some medical men who held diplomas from foreign universities and colleges which did not insist on that period of study before granting their diplomas. In Victoria, however, this power has not been granted as yet to the Medical Board, and in both New South Wales and Victoria the effort is now being made to still further protect the rights of local practitioners by securing the power to refuse to register any medical man whose qualification to practise depends upon a diploma obtained in any country which does not admit to practise in its dominions any medical man who does not hold its own qualification, or requires him to pass an examination before being allowed to practise. If these powers are granted, then graduates of foreign countries which refuse reciprocity in medical registration with Australia will not be registered here.

As regards the method of dealing with registered practitioners who may be proved to be guilty of "infamous conduct in a professional respect," the New South Wales Act of 1900 gave the Medical Board the power to strike off the name of any practitioner who may be proved to be guilty of any such offence. This power, however, has never been utilised by the Board, since the practitioner who may have been dealt with thus by the Board may appeal to the Supreme Court against the decision of the Medical Board, and as this body has no funds available to enable it to appear as plaintiff or defendant in any legal action, it has not thought fit to embark on such an expensive procedure. But the Medical Board has no power whatever legally to strike off from the register the name of any medical man who may have left the State for many years, or who may be known to be dead. There is no machinery provided for keeping the register accurate so far as the addresses of members is concerned, and hence the register is quite unreliable as a reference guide. It is obvious that to correct these defects the Board should be provided with an annual grant of money by the State to enable it to carry out the duties imposed on it by Act of Parliament, or else provision should be made in the new tion designed for the cure of this condition. Probably the most usual and most favoured operation at the present time is some form of ventrosuspension or ventrofixation; and as regards the after-result, the cases I have had a chance of following up would indicate that the distinction between these two operations depends chiefly on whether the ligatures used for the suspension or fixation are absorbable or not, as a ventrofixation done with an absorbable material, as catgut, in the course of a few weeks becomes practically a ventrosuspension. Apparently tendon, either the formalin prepared or the ordinary biniodide tendon, is very often not absorbed, or at any rate for such a time as to make it justifiable to consider it as an unabsorbable material. I have frequently seen tendon which has been buried in the abdominal cavity for periods up to two and even four years, which was apparently unaffected at the time of a second operation, and on cutting sections through such tendons little or no leucocytal infiltration was to be seen, and as regards tensile strength it did not seem to have suffered at all. Catgut is always absorbed quickly, so that probably the adhesions formed round an absorbable ligature like catgut will tend to be less dense than round an unabsorbable ligature like silk or tendon, round which the adhesions, being denser, will naturally persist longer, and not tend to disappear while the foreign body remains. As a result of these operations the uterus is changed from a pelvic to an abdominal organ, for a time at least, and from being a freely mobile organ it is made into a more or less fixed one; and we have to consider what the result of this fixation will be should the patient become pregnant, and also whether the operation will permanently keep the uterus in its forward position. In considering this operation there are such a number of modifications of doing it that it becomes difficult to compare them. While some operators insert their sustaining sutures on the anterior surface of the uterus, others use the fundus; and others, again, following Kelly's original suggestion, insert the sutures on the posterior surface of the uterus in order to allow the intra-abdominal pressure to act on that surface. Then some operators use unabsorbable sutures, silk, silkworm gut, etc., and others use catgut always. There are very different views, too, as to the ultimate result of the operation. The question of what really does happen to the suspensory ligament after a ventrosuspension is an interesting one, and I have kept notes of cases I have examined at varying periods after this operation, and also of cases where it has been necessary to reopen the abdomen at a subsequent operation. In 13 of these the second operation was done at the Adelaide Hospital, where I have assisted at the operation, and I am indebted to Dr. Hamilton for these cases. First, in those cases where the ventrosuspension was done with tendon or silk. I have notes of eight of these, six done with tendon and two with silk, and all of whom I have examined at periods from six months to five years after the first operation. In six of these cases the uterus was still in a forward position, and a definite suspensory ligament was palpable on imanual examination. In three of these six cases the abdomen was reopened, and the actual condition of the ligament could be observed. Two of the ligaments were solid and firm, suggesting that they might cause trouble by preventing the expansion of the uterus during pregnancy. The third was much thinner and stretched out to a length of two inches, and did not apparently take any active part in keeping the uterus forwards. In the other two cases no suspensory ligament could be felt, but the uterus was again in a position of retrodeviation. One of these patients had had a full time child since the original operation, and the abdomen had to be again reopened on account of further adnexal inflammation. In this case also there was a thin, stretched-out suspensory ligament stretching from the old abdominal incision to the fundus uteri. So that in seven out of eight of these cases there was a suspensory ligament left as a result of the operation, though in two cases it had apparently stretched to such an extent as to cease to be of service in holding the uterus forwards.

These are the only cases I have been able to follow up which have been done with tendon or silk, as for the last four years most of the ventrosuspensions at the Hospital have been done with catgut. I have notes of 27 cases in whom a ventrosuspension was done with catgut, and whom I have examined at periods varying from six months to four years after this operation.

First, in regard to the position of the uterus. In 11 cases the uterus was in good position at the time of the second examination; in 16 cases it was again retrodeviated. In none of these cases examined after six months was any suspensory ligament to be felt on bimanual examination. Of these 27 cases the abdomen was re-opened in 17 of them, and the actual condition of the pelvis could be ascertained, and in none of these cases was any sign of a suspensory ligament discovered. The shortest period after the first operation that the abdomen was reopened was four months. Six of these cases had had the anterior aponeurosis included in the suspensory ligatures, so that the original operation was a fixation. In the ten cases which were not reopened it is impossible to say for certain whether any sign of a suspensory ligament would have been found, but it is certainly remarkable that in all the cases that were reopened there was no suspensory ligament found. In some of these cases the catgut used was formalin catgut, in others biniodide catgut, and in others iodine prepared catgut. While I have recorded these results as I have found them, I naturally realise, from hearing of the experience of others, that sometimes a suspensory ligament does persist after a ventrosuspension done with catgut, and especially if there has been any suppuration in the abdominal wound. Taking these two series together, we get 35 cases who had had a ventrosuspension done, and at varying periods from six months to five years afterwards, the uterus was found not to have retained its forward position in 18 of them. While agreeing that it is not a fair criterion to take 18 out of 35 cases, as during this period there were a great many other cases who did not report themselves and who were presumably well, and also admitting that in some of these cases the retrodeviation had recurred as the result of a fresh inflammatory process, the fact of finding that the operation had not fulfilled its object in such a number of cases indicates that a ventrosuspension as generally done, and especially when absorbable ligatures are used, cannot be regarded as really effective in permanently maintaining the forward position of the uterus.

The above results would indicate that a ventrosuspension done with catgut does not fix the uterus permanently to the abdominal wall, but merely holds it in a forward position for some months, and so gives the uterine supports time to regain their tone, while when an unabsorbable ligature is used the uterus as a rule is definitely suspended by a cicatricial ligament. It seems rather difficult to believe the statement we often see that such a ligament will stretch with pregnancy and involute after delivery, and so still hold the uterus forwards. I have attended five cases in confinement who have had a ventrosuspension done, one with silk, one with tendon, and three with catgut, and in all these cases the confinement was easy. Four other cases who had had ventrosuspensions done, and who have had what they described as normal labours, are included in these 35 cases. Of these nine cases in only three was the uterus in a forward position after the confinement, which is instructive, as indicating the importance of parturition as a causative factor in retrodeviations, and also how unlikely it is that the suspensory ligament, if one should be present, will stand the strain of the growing uterus during pregnancy, and still hold the uterus forwards after confinement.

It is generally admitted that a ventrofixation proper is not a justifiable operation in a woman who is likely to have children, though even now one constantly sees accounts in the journals of cases where Cæsarean section has been necessary when such patients have gone to term. In regard to this, it is of interest to note that Andrews,[3] in a recent review of the effects of ventrofixation and ventrosuspension on subsequent pregnancy, has collected 395 cases of labour following these operations, and of these there were 20 cases where Cæsarean section was performed as a direct result of difficulties causes by the previous operation. Of these 20 cases, 14 followed ventrofixation and six followed some form of ventrosuspension. He comed to the conclusion that the method which caused least difficulty with subsequent labour is a ventrosuspension, though he adds that this operation has the theoretical objection that the suspension may not be permanent. In a great number of these cases the original operation was done on account of retrodeviation accompanying prolapsus uteri.

While the position of the uterus after the removal of the ovaries seems to be of little consequence, if it is wished in such a case to put the uterus in a forward position, there would appear to be no objection to a ventrosuspension done with catgut; but in those cases in which the abdomen is opened and the ovaries are not removed, what is to be done to correct a retrodeviation? If a suspension with catgut be done, judging from these cases, we can matter sees no harm in chemists prescribing for minor ailments. But, we would ask, are they in a position to say when an ailment is a minor one? We know that a case of appendicitis or of typhoid fever may present itself in the light of a minor ailment to a chemist, and prescribing for such a condition may readily lead to a fatal issue by postponing the appropriate treatment for so serious a case. A better understanding between medical men and pharmacists would lead to the abandonment of all counter prescribing by chemists, and an improved state of business for the pharmacists.

Alcohol in Patent Medicines.

We learn from a contemporary chemists' journal that attention is being directed in Australia and New Zealand to the growing number of so-called patent medicines which contain a very large proportion of alcohol in their contents. An enquiry has been held by the United States Revenue Department, when it was found that many of the nostrums were composed largely of alcohol, and were being sold freely in prohibition districts. The Commissioner of Revenue states that there are a number of compounds on the market in which the drugs enter so little as an element that their quality and character is scarcely changed; in others, a larger quantity of drug is used, but the base remains the same. Many of the medicines on the market contain 25 per cent. of alcohol, and the proportion runs as high in some cases as 45 per cent. The report has been viewed with considerable interest in Victoria, where there are one or two largely advertised preparations which are said to consist mostly of spirit. Our contemporary remarks that "an analysis of these articles would doubtless prove interesting reading for the public, and would probably show that the local manufacturer is not far behind the American vendor in disposing of his goods to the public without the restrictions provided for the sale of spirituous liquors under the Licensing Act."

The Sydney Abattoirs.

At a meeting of the Sydney Municipal Council last month the following proposal from the Health and By-laws Committee was discussed :—"That the City Council take over the abattoirs, and pay to the Government a sum per annum equal to the average surplus on the working of the abattoirs for the last three years. (The average annual surplus for the past three years, after paying for new building and repairs, has been computed and found to amount to £700.) That no rental be charged to the Council for three years, as it is hoped that, at the expiration of that time, the municipal abattoirs will be established elsewhere, though, if the present site be required for a longer term than three years pending completion of the new abattoirs, the Government shall meet the Council by granting a reasonable extension of tenure without rent. The Council and the Government to agree at the outset as to the plant to be taken over, so that cause for future misunderstanding shall be obviated as far as possible. Inasmuch as the Government gives a valuable concession to the Council, which will result in a serious loss of capital expended on plant by the Government, it is considered that the Council on its part should assist to make that loss as light as possible by utilising all the plant that is useable, and paying therefor at a fair valuation. The liability for cattle driving has never attached to the Government, and, not being admitted, must be considered as non-existent. No indemnity to be given by the Government in regard to actions at law for alleged nuisances of a general character relating to the abattoirs. Such actions have never been successful in the past, because the Government has been in a position to show that all reasonable efforts have been made to conduct the business on the best lines, and, moreover, the business having been established long prior to the settlement which has sprung up in the neighbourhood. The transfer of the abattoirs to the Council would not alter the position indicated, but obviously the Council, similarly to the Government, would remain responsible for proper supervision and management." The Lord Mayor said he was satisfied that from a business point of view the Council would be doing absolutely the right thing in closing with the offer made by the Government. It was a matter of the highest importance that the meat supply of the metropolitan area should be placed in a satisfactory position. It was hoped that the new abattoirs would be ready in at most about three years' time, and on an expenditure of a quarter of a million it was confidently expected that the Council would get a handsome return, even with a moderate tariff. He had no hesitation in recommending the Council to accept the abattoirs. At present only 60 or 70 per cent. of the meat consumed in the city was killed at Glebe Island, but when they got their bill passed, all other abattoirs within a radius of 14 miles would close up at once. The proposal was agreed to, and the Lord Mayor has written to the Premier that the City Council is prepared to take full responsibility for the abattoirs on and after January 1 next, in terms of the resolution. If the reply of the Government is favourable the Council will go into possession at once, and no time will be lost in making the present abattoirs as complete as possible and in forwarding the arrangement for the new abattoirs, which are to be erected on a site yet to be selected.

The Coroner and the Adelaide Hospital.

The indignation of the profession has been excited of late by the remarks made by the City Coroner, Dr. W. Ramsay Smith, at an inquest held at the hospital last month. The occasion of his recent attack on the institution was an inquest on a woman who died under an anæsthetic. The patient suffered from hip disease, which necessitated a long and painful dressing. As the woman was in a weak state, ether was administered by the honorary surgeon (Dr. Cudmore), who directed the manipulations of the house surgeon. At the inquest, when giving evidence, Dr. Cudmore was asked by a juror whether ether was safer than chloroform. *The Coronor answered the question* by saying that ether was better for the doctor's reputation, but chloroform was probably safer for the patient in the long run. Dr. Ramsay Smith, in making this statement, was well aware that ether is almost entirely used at the hospital to the exclusion of chloroform. Naturally, as an Edinburgh man, he is biassed by the traditions of his school. *As Coroner*, however, he has no right to go out of his way to make an *ex parte* statement containing the insinuation that patients were subjected to risks to save the reputations of the officers of the Adelaide Hospital. Since the disastrous day, many years ago, when two patients died under chloroform at the Adelaide Hospital, it has always been the custom to administer ether unless contraindicated. The Adelaide Hospital is not unique in this respect. The same custom holds good at the London Hospital, where the rules for the guidance of the resident officers were laid down by Dr. Hewett, now anæsthetist to the King. In the high court of professional opinion, the case ether v. chloroform is still *sub judice;* therefore we decline to accept the verdict of the Coroner of the City of Adelaide.

Infantile Mortality.

It is gratifying to learn from the reports we publish from time to time issued by Dr. W. G. Armstrong, the Sydney City Health Officer, that the rate of infantile mortality in the metropolitan area appears to be on a steady decline. Yet the number of deaths of infants under one year of age is very large, and constitutes a serious loss to the community, especially in view of the low birth-rate. Efforts have been made to reduce this mortality by issuing to mothers of young infants simple instructions on the general management and feeding of young children, and there is reason to believe that the diminished mortality rate is to some extent at any rate due to this action on the part of the City Health Officer. In this connection it is interesting to learn of a proposal which has been carried into effect in Huddersfield, England, with a view to a diminution in the high rate of infantile mortality. The Mayor of that town offered a sovereign to every mother in his own ward whose child was born during his term of office and survived 12 months. As soon as the child's birth was notified the Mayor sent a card to the parents containing a promissory note on one side and some simple rules for nursing and feeding the infant on the other. It is said that the experiment has been well received, and the experience thus gained has proved that stupid ignorance on these matters, rather than want of maternal affection and care, is the cause of the high rate of mortality in young infants. As a result of the Mayor's action the Huddersfield Corporation are now employing two lady inspectors to visit the homes where a birth has occurred and to give advice on the rearing and nursing of the child. We understand that H.R.H. the Princess of Wales has shown deep interest in this scheme and is anxiously watching the results.

We regret to record the death of Dr. David Wield, the honorary secretary of the Queensland Branch of the British Medical Association, and our special correspondent, after a short illness. At the meeting of the New South Wales Branch on December 15th it was unanimously agreed to send a letter of condolence to the Queensland Branch on the loss of their highly respected and much-valued secretary. We publish in another column an obituary notice of Dr. Wield, written by Dr. Wilton Love, of Brisbane.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

A MEETING of the Branch was held at the Royal Society's Room on November 24th; the Vice-President (Dr. F. A. Pockley) in the chair. About thirty members were present.

Dr. W. Fisher, Weston, and Dr. H. Chapman, Sydney University, were elected members. Dr. W. D. Langton, Redfern, was nominated for election.

Dr. W. J. MUNRO read notes on, and exhibited a preparation of the spirochæta pallida, an organism associated with primary and secondary syphilitic lesions.

Dr. POCKLEY congratulated Dr. Munro on the very beautiful specimens he had exhibited. It was of special interest at the present moment. It appeared as if the specific organism of syphilis had at last been found.

Dr. W. CAMAC WILKINSON said he feared that only those who have had experience in the methods necessary for such a demonstration as Dr. W. J. Munro had given them could fully realise the amount of skill in technique and time that had been given to this object. Not only have the great difficulties in staining been overcome, but they had presented to them photographs which are quite equal to, if not superior, to anything he had seen in current literature. The method of Oppenheim, which he recommended to Dr. Munro's notice, depended on the fact that the smear was fixed by drying in air, and no heat was used until the stain had been added. Dr. Munro had shown that he was a master in microscopic technique.

Dr. C. A. EDWARDS exhibited some skiagraphs of chronic callous ulcers, and contributed notes on the same.

Dr. L. HERSCHEL HARRIS said he wished to congratulate Dr. Edwards on his remarks, which were entirely original, as, so far, no mention had been made nor had any illustrations appeared in connection with this subject. He came across numerous such cases amongst his out-patients, but had not subjected any of them to X-ray examination. He certainly would take the first opportunity of doing so. In his opinion the periostitis was secondary to the irritation caused by the chronic ulceration, and very likely this periostitis was to some extent the cause of delay in the healing of such cases.

Dr. W. H. READ said, with reference to the relationship between chronic ulcer and periostitis, he had done no work on the subject himself, and believed that Dr. Edwards was the first to demonstrate by means of skiagraphy the existence of a periostitis beneath a chronic ulcer. When they considered that the periosteum was really the base of the ulcer, they would expect that it would share in the general chronic irritative process. He, therefore, looked upon the periostitis as a secondary condition to the chronic ulcer.

Dr. W. CAMAC WILKINSON read a paper on "Pernicious Anæmia," seven cases being illustrated with microscopic demonstration and diagrams.

Dr. LITCHFIELD asked Dr. Wilkinson if he drew any sharp distinction between pernicious anæmia and severe secondary anæmia. He noticed that nearly all the cases recorded by Dr. Wilkinson followed some exhausting disease. He remembered the case of a child, aged 12 months, in whom there was great destruction of the red blood cells, combined with an increase and alteration in the white cells. The child had been suffering for some months from an exhausting diarrhœa, and he looked upon the case as one of severe secondary anæmia.

Dr. FLASHMAN wished to know if he was correct in understanding Dr. Wilkinson to say that the cell labelled "metrocyte" in one of the specimens was the precursor of the normoblasts and, therefore, of the red cells. He also asked if the reader of the paper regarded the number of metrocytes present as constituting a measure of the severity of the disease in any individual case. As the cells were uncommon, would Dr. Wilkinson give them the details of the technique he used in demonstrating them?

Dr. SINCLAIR GILLIES congratulated Dr. Wilkinson on his very interesting paper. Their views on the pathological changes characteristic of pernicious anæmia changed from year to year. A few years ago it was strongly held by many that the presence of megaloblasts was necessary to warrant a diagnosis. Now it was admitted that many cases ran a fatal course without the megaloblasts being found. For practical purposes the essential blood changes were marked decrease in the number of red corpuscles, variations in their size and shape (poikilocytes, microcytes, megalocytes), presence often of normo- and megaloblasts, a relative increase in the lymphocytes, etc., a point on which stress had not been laid in the paper. No corresponding diminution in the amount of hæmoglobin present. The colour index remained high, being sometimes higher than 1, sometimes slightly less. The presence of high colour index he considered a very important point in the diagnostic examination of the blood but alone did not justify a diagnosis of pernicious anæmia. In addition to the characteristic blood changes there must also be present the symptom complex described by Addison, an anæmia without loss of flesh and without discoverable pathological cause; unless the clinical and pathological findings were considered together mistakes must arise. For instance, cases of gastric cancer, intestinal parasites and other wasting diseases had shown the blood changes of pernicious anæmia and had been classed as such during life. Some of the cases related in the paper before them were not altogether convincing; for instance, in the first case occurring after post-partum hæmorrhage no mention was made of the white cell count, or of the hæmoglobin index; without this it was hard to exclude sepsis as a cause. In the second case the hæmoglobin index was low for a case of pernicious anæmia, while in the case with extreme jaundice dying three months after examination, it was impossible in the absence of a post-mortem to exclude cancer as a cause. He would emphasise the necessity of excluding clinically all possible causes of anæmia before classing the case as idiopathic or pernicious anæmia.

Dr. W. CAMAC WILKINSON, in reply to Dr. Litchfield, considered that his case presented all the features of the disease to which he had referred—anæmia pseudoleukæmica infantum. They must also admit that the etiology of pernicious anæmia was still wrapt in mystery. The one form of pernicious anæmia with a definite cause was the form associated with the Bothriocephalus latus. Some thought (Müller's cases) that syphilis might be a cause. Otherwise they knew nothing, except that morbid states of the mouth and bowel might be factors. The features of the disease might be the result of a toxæmia, brought about by some living agent in the intestinal tract. Stockman's view used to be that multiple hæmorrhages occurring in tissues might account for the disease. With regard to Dr. Gillies' remarks upon the colour index, he gave one illustration (No. 2) in which the colour index was below 1, yet the post-mortem disclosed typical lesions of pernicious anæmia. He made a point of that, which Dr. Gillies seemed to have missed. Moreover, in one case he observed the colour index at one time to be above 1, and at another time to be well below 1. Pernicious anæmia does not create an immunity against chlorosis, so that chlorosis may lower the index, as in case 2. There were, in fact, *cases of pernicious anæmia in which the hæmoglobin is more affected than the number of red cells.* This is the view of Engel, Grawitz, and Türk, and the case he had reported confirms this view. He repeated, "Errors in diagnosis are inevitable if we trust blindly to our knowledge of yesterday." Could he illustrate that better than by pointing out that Dr. Gillies told him that case 1, which by-the-bye he did not see, though the clinical features, the character of the blood and the post-mortem examination made by Professor Welsh were those of typical pernicious anæmia, and though the form of sepsis that was thought by some (not by him) to exist—septic endocarditis—was proved not to exist, still was a case of sepsis. Professor Welsh and he had abundant evidence that it was pernicious anæmia. There was no evidence of sepsis, except boils, which was a recognised symptom of pernicious anæmia. Yet Dr. Gillies said it was sepsis. The methods of measuring the value of hæmoglobin were not trustworthy, and naturally when a number of microcytes and poikilocytes, which are poor in hæmoglobin, were present, the colour index cannot be high. However, he referred Dr. Gillies to the opinions of the greatest hæmatologists in the world—Ehrlich, Engel, Türk, etc. He was still at liberty to disagree with them. His (the speaker's) study of pernicious anæmia in a considerable number of cases lead him to agree with them. For that reason he had made this communication.

Council Meeting.

The Council met at the Association Rooms on Tuesday evening, December 5th. Present: Drs. Pockley, Crago, Rennie, MacCormick, Hankins, Dick, Newmarch, Hinder, Brady, Jarvie Hood, and Worrall.

The minutes of the previous meeting were read and confirmed.

Dr. W. D. Langton, of Redfern, was elected a member of the Branch.

Re Dr. Hamilton's letter with reference to the appointment of delegates to the committee proposed by the Australasian Medical Congress. The question of forwarding the resolution of Council passed at last Council meeting to the various branches was reconsidered, and after discussion it was decided to forward the resolution at once.

Resolved—"That a copy of the resolution be forwarded to the Medical Society of Victoria also."

Dr. Dick suggested that the names of members of the British Medical Association in Australasia be published in the *Australasian Medical Gazette.*

Resolved—"That the list be published in the January number of the *Australasian Medical Gazette.*"

Letter was read from a practitioner in North Sydney asking that his name be removed from the confidential list.—Referred to the North Sydney Medical Society.

Correspondence relating to the question of oculists was read, also an opinion of the Crown Solicitor on the subject.

Resolved—"That data be completed with a view to the preparation of an affidavit as suggested by the Crown Solicitor."

Resolved—"That Sir Arthur Renwick be asked to introduce a bill for the amendment of the Medical Acts."

Letter from Dr. Beeston relating to a paragraph which appeared in the *Newcastle Herald.*

Resolved—"That a paragraph be inserted in the *Gazette* calling attention to advertisements of thanks appearing in the lay press."

Letter of the Hon. Secretary to Dr. Woodward with reference to the employment of a layman to assist in the examination of the eyesight of railway employees, also Dr. Woodward's reply stating that he could not recommend the discontinuance of the present arrangements.

Resolved—"That the Railway Commissioners be written to with regard to the employment of an unqualified man to examine eyesight of railway employees.

Letter from Dr. Read, North Sydney Medical Association, with reference to the action of a North Sydney practitioner.

Resolved—"That the practitioner named be placed on the confidential list."

Letter was read from Dr. S. A. West with reference to the Benevolent Fund.—Received.

Letter from the Metropolitan Medical Association forwarding the following resolution: — "That the committee of this Association disclaims responsibility on the part of medical officers of friendly societies for all messages which are not delivered in writing, which shall include patient's name, address, and the name of the lodge, also that this committee respectfully requests the Council of the New South Wales Branch of the British Medical Association to publicly confirm this resolution."

Resolved—"That the Council endorses the above resolution, and that it be published in the *Australasian Medical Gazette.*"

South Australia.

The monthly meeting was held at the University at 8 p.m. on Thursday, November 30th, 1905; the President (Dr. Lendon) occupied the chair, and there was a large attendance of members (over 40 being present) and several visitors.

The minutes of last monthly meeting were taken as read, and signed.

The meeting took the form of a "clinical evening," and very numerous exhibits were brought forward. Amongst others were the following:—

(A)—Living Exhibits.

The **President** (Dr. Lendon) showed the following patients:—1. A case of necrotic epiphysitis of heel in a child, followed by necrosis of rib.—2. Recovery without necrosis, after acute suppurative periostitis of the whole shaft of the right femur, in a boy who had simultaneously an acute necrosis of the opposite great toe.—3. Thiersch's operation for epispadias, partial success; also photo of epispadias affecting prepuce only.—4. A case of double talipes equino-varus, in which one foot had been operated upon by Dr. Kent Hughes at the time of the Congress, and the other by Dr. Lendon's modified method a week or so later; good results.—5. A case of spina bifida which is being treated with Morton's fluid.

Dr. W. Anstey Giles showed a patient on whom he had successfully operated for congenital pyloric stenosis.

Dr. Symons showed a patient with lens of right eye dislocated into the anterior chamber.

Dr. Swift showed a marked case of rickets.

Dr. C. E. Todd showed:—1. Case of ruptured duodenal ulcers.—W. S., *æt.* 29, was attacked with acute abdominal pain after mid-day dinner consisting of Irish stew and apple tart. Sent into hospital by Dr. A. A. Hamilton for immediate operation. Abdomen opened in mid line, above umbilicus; some gas escaped from peritoneum and a little clear fluid, with white substance, which looked like potato; anterior wall of stomach drawn into wound, and situation of ulcer found by following track of food; a bevelled ulcer found in the back part of the duodenum close to pylorus; it was very difficult to bring into view; closed with mattress stitches, and a plug of omentum sewn over it; drainage tubes in both loins; proper uneventful recovery.—2. Mrs. B., *æt.* 35. Radical cure of large incisional hernia in lower abdomen. An incision some distance away from bulging, hoping to find peritoneum not adherent; adherent intestine come upon and opened; quickly sewn up; all hernial area removed, which took away so much of abdominal wall that the edges were only brought together with much tension; healing by first intention, and result very good, now 10 months after operation.—3. Mrs. A., *æt.* 67. Removal of gallstones from common duct. First operation 10 months ago. Stomach very adherent to atrophied gall-bladder; in separating adhesions the stomach was opened and stitched up at once. The transverse colon, the omentum and duodenum formed a densely adherent mass; a stone could be felt deep in the common duct, but patient's condition was so bad and she had such deep jaundice that it was left. Second operation eight months afterwards. Had had a biliary fistula; lately has lost flesh, suffered pain, and is getting jaundiced again; incision six inches long under fistula; a hard mass, suggesting malignancy, felt in head of pancreas. In spite of hæmorrhage, to find stone the pancreas was incised, and the nucleus of the hard lump proved to be a gallstone in the common duct; removed, and duct sewn up; gutter drain introduced; abdominal distension some days and repeated hæmorrhage, but ultimate complete recovery.—4. R.H. Loose cartilage in right knee joint, following injury some months ago. The cartilage was speared with a long needle, the joint opened, and it was easily removed. A week afterwards there was pain in the joint, with swelling and high temperature (102°); swelling gradually went down, and now movement is quite free.

Dr. H. Simpson Newland showed the following cases:—1. A boy, aged seven, an example of Mongolian imbecility. He mentioned two other cases which had come under his observation, and mentioned the characteristics of this group of imbeciles; he stated that these cases were more frequently met with than cretins, with which they were not infrequently confused.—2. A child, aged eight weeks, upon whom he had operated for complete cleft palate; the result was very good, and was an argument in favour of operation at an early date.—3. A boy, aged three, who had previously never walked. Eighteen months ago he had suffered from infantile paralysis. The extensors of the knee and ankle remained paralysed; the calf, hamstring muscles and the sartorius were unaffected. The sartorius was divided at its insertion and sutured to the top of the patella; the biceps tendon was split and similarly treated. The boy was now able to walk a few steps alone, and a good result was anticipated.

Dr. A. M. Cudmore showed a series of four cases, in which the main symptom was vomiting, which was relieved by surgical interference:—1. Woman, *æt.* 47. Long history of chronic dyspepsia, vomiting and loss of flesh; indefinable mass felt in region of pylorus, which, on operation, was found to be pylorus, omentum and gall-bladder bound together by adhesions. Posterior gastro-enterostomy and lateral anastomosis of jejunum below opening into stomach were done. Symptoms cleared up, and patient has put on 10 lb. weight in six weeks.—2. Man, *æt.* 62, complaining of vomiting, pain in upper part of abdomen, and loss of weight. History of injury in epigastrium by pole of holly 30 years ago; no history of syphilis. Operation disclosed pylorus and omentum adherent to under surface of liver, also several kangaroo tendon-like bands across the hepatic flexure of the colon. All adhesions were broken down. Since the operation patient has lost his symptoms and put on flesh.—3. Man, *æt.* 29, was operated upon for suppurating hydatid of liver in July, 1905. During convalescence had severe attacks of vomiting and abdominal pain; attacks lasted two or three days, and occurred at irregular intervals, until October 9th, when he was operated upon, and a band of omentum was found stretching across stomach to the upper surface of the liver, where it was found adherent to a small suppurating hydatid. Patient vomited for about a week after the operation; since then he has put on flesh and improved in general condition and has left the hospital.—4. Man, *æt.* 52, suffering from vomiting and other symptoms of gastric carcinoma. On account of extent of the growth and inability to get at posterior surface of the stomach, an anterior gastro-enterostomy was performed. Since the operation, vomiting has ceased, and patient has put on flesh.

Dr. Cudmore also showed a case of lymphangiectodes in a man *æt.* 24. First noticed by him when five years old; probably congenital; first commenced on inner side of ankle, now extends up to thigh.

(B)—Pathological Specimens.

Dr. Lendon showed:—1. A cauliflower growth of cervix uteri, which necessitated Cæsarean section; recovery.—2. A rotated and strangulated ovarian cyst, size of cocoanut, complicating early pregnancy in a primigravida; recovery.—3. Interstitial myoma of anterior wall of uterus, size of a Tangerine orange, which caused severe dysmenorrhœa in a single woman of 25; recovery.—4. Right lobe and isthmus of thyroid removed for pseudo-angina pectoris from a woman of 52, from whom the left lobe had been previously removed by him some four years ago; recovery; no sign of myxœdema in three months.—5. Calculus removed from pyo nephrotic kidney.

Dr. Humphrey Marten showed a specimen which was probably allied to Raynaud's disease. It was from a lady aged 47, who had had the index and middle finger of the right hand removed for what was supposed to be a growth. The thumb then became gangrenous and the arm was removed below the elbow. A few weeks afterwards a gangrenous patch appeared on the tip of the stump about as large as a threepenny piece; this was attended with acute pain. Round this successive rings of similar patches appeared, and the pain being so intense the arm was amputated about its middle. The patient was free from all signs of any organic disease.

Dr. Poulton showed a number of prostates removed by the suprapubic method, also a number of appendices showing various abnormal conditions; a ruptured Fallopian tube from a case of ectopic gestation, and other specimens.

Dr. Todd showed:—1. Skiagraph showing pea rifle bullet in right shoulder-joint; the bullet entered the arm about an inch above the elbow. It was removed from the head of the humerus, being embedded about half an inch.—2. Skiagraph showing apparently three distinct calculi in the right kidney. At operation three separate parcels of stones were found in kidney, pelvis and upper part of ureter. Fifty small stones altogether were removed.

Prof. Watson showed specimens of:—1. Traumatic pancreatitis and widespread fat necrosis from a man *æt.* 40, who died three weeks after an apparently trivial motor car accident.—*Dr. Marten.* 2. Rudimentary left half of a double uterus with an unruptured tubal mote, from a multipara *æt.* 32, who thought she had miscarried three months before admission. The tumour which formed was under suspicion of being a pelvic hydatid, as the patient had been operated upon 12 years previously for hepatic hydatids.—*Dr. J. A. G. Hamilton.* 3. Cystic left half of a double uterus from two-para, *æt.* 25, who first noticed a swelling after the birth of her last child, six months ago. Before operation the swelling was thought to be an adherent ovarian cyst.—*Dr. J. A. G. Hamilton.* 4. Uterus, the seat of obsolescent myomata and cancer of the fundus, from a spinster *æt.* 53, who had been subjected to the ergot treatment at 38 years of age. Bleeding commenced three years after the menopause and continued six months, when she consented to an operation.—*Dr. J. A. G. Hamilton.* 5. Left kidney of a woman, *æt.* 50, which had been tapped 24 years ago for hydatids by the late Dr. Way. A second hydatid with daughter-cysts was removed by lumbar incision six months ago; a urinary fistula resulted, and the kidney was removed. The patient then suffered from vesical spasm, which persisted till she passed a ruptured cyst per urethram a fortnight later.—*Dr. J. A. G. Hamilton.* 6. Gangrenous ovarian cyst with twisted pedicle, from a multipara, *æt.* 33, who was admitted as a case of abdominal hydatid; acute symptoms developed, and she was transferred to the gynæcologist.—*Dr. J. A. G. Hamilton.* 7. Retro-peritoneal myoma weighing 13 lb., from a spinster, *æt.* 51, who first noticed its presence last summer. It developed in the left broad ligament. The cavity left by its removal was drained by a rubber tube from the vagina for more than a fortnight.—*Dr. W. A. Giles.* 8. Globular myoma of the anterior wall of the cervix uteri, from a spinster, *æt.* 37, who complained of bladder trouble, which was doubtless connected with the moderate degree of parietal ascention of that viscus caused by the tumour.—*Dr. W. A. Giles.* 9. Cystic left kidney, a foot in length, removed a fortnight ago by the transperitoneal method from a man, *æt.* 77.—*Dr. W. A. Giles.* 10. Sarcoma in the right temporo-sphenoidal lobe of a woman who died, *æt.* 26. Neuralgia caused by the tumour impinging on the dura mater covering the Gasserian ganglion was one of her symptoms.—*Dr. J. C. Verco.* 11. Diffuse glioma, with interstitial hæmorrhages of the left temporo sphenoidal lobe of a man, *æt.* 40, who suffered from fits and motor troubles.—*Dr. W. T. Hayward.* 12. Caput coli cæcum, from a male, *æt.* 35. There is a small pouch close to the origin of the appendix, suggestive of a congenital attempt at appendicular duplication, which would perplex many operators.—*Dr. Niesche.* 13 Femora and axis vertebræ from two colts that struggled inordinately and sustained fractures while being gelded, death being instantaneous in both cases.—*The Hon. A. Tennant.*

Dr. J. Burton Cleland showed a new method of preparing macroscopic specimens for demonstration and museum purposes now in use at the Pathological Institute of the London Hospital. The method consists of an adaptation of the formalin-spirit-glycerine one, followed by embedding in gelatine. Examples: I. Melanotic sarcoma—(1) primary growth on cheek, (2) secondary deposit in the lymphatic gland embedded in the parotid, (3) secondary lymphatic glands under the jaw; II. Avian tuberculosis (fowl)—Sections of liver, spleen, mesenteric glands round intestine, all showing numerous caseating tubercular foci. He also showed two photographs and a drawing illustrating the conversion of the cells of the germ-centres of lymphatic glands into lymphocytes (*vide* forthcoming volume of the Trans. Path. Soc. of London, " The Rôle of the Lymphocyte)—(1) " Germ-centres " in cervical lymphatic gland of child; (2) " Germ-centre," more highly magnified, from an axillary gland in an adult; (3) Drawing showing " germ-centre " cells in the left and lymphocytes on the right, and conversion of the former into the latter. (Taken from Fig. 2.)

Queensland.

A meeting of the Branch was held on Friday, December 1st; Dr. Robertson (president) in the chair, and an attendance of 17 members.

Drs. Turner and Brockway were appointed to represent the Branch on the committee formed for considering the question of amalgamation of the various Australasian Medical Societies.

The President then said that since the last meeting a calamity had befallen the Queensland Branch in that Dr. Wield, the hon. secretary, had passed away. Dr. Wield was beloved by all, his upright character and geniality having appealed to everyone. He had been taken in the midst of a promising career, and to him personally his death was a very great loss; and he thought that the regret at the loss to the Branch should be placed on the minutes, and that this be sent to Mrs. Wield (the widow).

Dr. Turner said that Dr. Wield's death had been very sudden and unexpected, that he had made a very zealous and methodical secretary and was esteemed by everyone.

Dr. Carvosso said that others outside the profession also felt that in the death of Dr. Wield a very good friend had been lost—one who could ill be spared, and about whom everyone had nothing but good words to say. He mentioned especially the loss which Dr. Wield's death would be to the Brisbane Golf Club.

The Acting Hon. Secretary read the in-memoriam notice which had been written for the *A.M.G.* by Dr. Love.

It was resolved that a record be placed in the minutes of the appreciation of Dr. Wield as a man, a fellow practitioner and as hon. secretary, and the expression of deep regret at the great loss which the Branch had sustained at his death, and that a copy of the resolution be sent to Mrs. Wield.

Nominations for the position of secretary were then asked for, with the following result:—Dr. McLean, Dr. Brockway, Dr. Eleanor Bourne, Dr. Espie Dodds.

The President then moved and it was resoved that the meeting be adjourned until December 15th, as a token of respect for the memory of the late hon. secretary.

REPORTS OF OTHER SOCIETIES.

Medical Society of Victoria.

THE ordinary monthly meeting of the above Society was held in the hall of the Society on Wednesday, December 6th; the president, Dr. A. Jeffries Wood, was in the chair.

Dr. LAWRENCE gave a demonstration on the treatment of certain skin diseases by radium, actinotherapy, and X-ray baths. The demonstration was illustrated by various photographs of patients and apparatus. Dr. Lawrence had had excellent results in generalised eczema and psoriasis from the use of X-ray baths, as many as seven tubes being in use simultaneously.

Dr. ANDREW asked whether any of the methods mentioned were of use in syphilitic lesions of the skin.

Dr. SPRINGTHORPE considered that the great fault of all these physical methods of treatment was that they dealt with results, not with causes.

Dr. REID (Sale) said that he had had considerable experience with the use of X-rays, etc., in skin diseases, and his results in eczema, psoriasis, etc., were quite comparable with those of Dr. Lawrence. He, however, as a rule combined the static form of electricity with the other methods, thereby, he claimed, modifying the general conditions of the body and thus acting more upon causes.

Drs. NIHILL and SYME also spoke.

Dr. LAWRENCE, in reply, thanked members for their remarks, and in answer to Dr. Andrew said that syphilis as a rule did not improve with the methods discussed; in fact, this was occasionally of use as an aid to diagnosis.

Dr. J. E. NIHILL read notes on a case of polycystic kidneys. A man, aged 43, was admitted suffering from abdominal pain and profuse hæmaturia. He said that he had passed calculi. Examination of the abdomen did not reveal a tumour. He rapidly became uræmic, and died two days afterwards. Post-mortem examination disclosed a pair of enormous polycystic kidneys. The kidneys were exhibited.

Dr. MACKEDDIE mentioned a case at the Alfred Hospital, in which post mortem he had found a pair of polycystic kidneys weighing respectively six and seven pounds.

Mr. G. A. SYME recalled two cases which had been operated upon with fatal results.

Dr. KILVINGTON discussed the pathology of polycystic kidneys. In a specimen in the University museum, sent by Dr. Reid, of Sale, he had carefully examined sections and found that the lining membrane of the cysts was almost identical with the epithelial lining of the normal tubules. The condition was also found in infants, and he mentioned a case at the Women's Hospital in which mutilation had to be resorted to before it was possible to deliver the child. There were present enormous polycystic kidneys and hydrocephalus. The condition was probably always congenital in origin.

Dr. REID also referred to the case of which the specimen had been examined by Dr. Kilvington. In that case there was a cystic condition of the liver also, and a diagnosis of hydatid had been made. However, on operation the mistake was discovered.

Dr. NIHILL also read notes on a case of Addison's disease in a patient aged 18. All the classical symptoms were present and well marked. The patient died in less than three weeks after admission. Post mortem the suprarenal capsules were very much enlarged and were fibro-caseous.

Dr. MACKEDDIE referred to a case at the Alfred Hospital to which injections of new tuberculin had been given. There was a definite reaction, and after a while distinct improvement. The patient then went out of the hospital and after a time was unfortunatley lost sight of.

Dr. WILKINSON said that many of the cases of so-called recovery in Addison's disease were merely temporary, and in other cases the diagnosis was unfounded. Pigmentation of the skin occurred in other conditions, as in pernicious anæmia, etc.

Dr. SPRINGTHORPE read notes on a case of acute meningitis. This, he said, might be called a case of fulminating meningitis. The patient had been suffering for some time from entero-colitis, but seemed to be convalescent. At noon on the day of his death he first complained of headache. He gradually became unconscious, with late convulsions. He died at 9.30 p.m. Post mortem extensive meningitis was present, and a microscopical examination of the fluid revealed an almost pure culture of pneumococcus. Slides from the specimen were exhibited.

The Sydney Metropolitan Medical Association.

AT a conjoint meeting of the Northern Suburbs, Eastern Suburbs and Western Suburbs Medical Associations with the Sydney Metropolitan Medical Association, held at 121 Bathurst-street, on Thursday, November 30th, Dr. Hinder being in the chair, the following resolutions were carried unanimously:—

1. "That the expediency of enforcing an income limit on members of friendly societies be affirmed. That the basis of the income limit be £200 per annum. That in case of a medical officer taking exception on that ground to any member or candidate for membership, the objection be referred to the local medical association for consideration. That if the objection be endorsed by the local medical association, it be recommended to the New South Wales Branch of the British Medical Association for ratification and enforcement. That the foregoing resolutions are intended to apply to present as well as to future members of friendly societies."
2. "That the foregoing resolutions be communicated to all local medical associations for approval, and that on receipt of their replies another conjoint meeting be held for further consideration."
3. "That no medical officer shall attend a juvenile lodge at less than the ruling adult rate."

Notice of motion for next conjoint meeting: "That a committee be appointed to draw up a uniform agreement with friendly societies for all members of the B.M.A."

The meeting considered that the question of incomes which exceed £200 should be treated in an equitable spirit and with elasticity corresponding to the differing circumstances and number in family of individual members of friendly societies.

Eastern Suburbs Medical Association (Sydney).

THE 15th annual general meeting of the E.S.M.A. was held on October 28th at Paris House, Phillip-street, Sydney. Dr. John Morton (Edgecliff), the retiring president, kindly entertained the members to dinner.

A very pleasant evening was spent. After the toasts of "The King" and "The Retiring President" were honoured, the annual general meeting was held. The Association is in a flourishing condition. The following were elected office-bearers for 1905-6:—President, Dr. L. J. Lamrock (Waverley); vice-president, Dr. P. J. Collins (Woollahra); councillors (3), Drs. John Morton (Edgecliff), V. Ludlow (Waverley), O'Gorman Hughes (Paddington); hon. treasurer, Dr. W. J. Barkas (Paddington); hon. sec., Dr. J. A. Dick (Randwick); auditors, Dr. F. Tidswell (Woollahra) and Dr. O. H. Reddall (Randwick).

Sydney Pathological Club. — The last meeting for the present year was held at the Board of Health Biological Laboratory on Thursday, November 16th. Professor Anderson Stuart (president) took the chair. Dr. GREIG SMITH, Macleay bacteriologist, read a paper on "The Identity of the Opsonins with the Normal Agglutinins." This was discussed by Professor WELSH and Drs. TIDSWELL, WILKINSON and EWAN FRAZER. Dr. CHAPMAN read a paper on "Precipitins," giving an account of some work done by Professor Welsh and himself. He also demonstrated some specimens in illustration of his paper. The President, Professor Welsh, Drs. Tidswell, Gillies, and Wilkinson discussed the paper. It was agreed to accept the invitation of the committee of the Linnean Society, and next year the meetings of the club will be held in the Linnean Bacteriological Laboratory.

Friendly Societies of New South Wales.

THE report of the Registrar of Friendly Societies for the years 1903-4, recently presented to Parliament, shows that at the end of 1903 the societies registered numbered 44, and a gain of one was made in 1904. During the two years branches increased by 203, the total moving from 936 to 1139. The H.A.C.B.S. gained 32 branches, the G.U.O.O.F., the I.O.R., and the M.U.I.O.O.F., 28; the A.H.C.G., 21; the I.O.O.F., 16, and the U.A.O.D. 13. It is worthy of note that the A.N.A. lost 14 branches, or 30 per cent. The A.H.C.G. advanced at the highest branch rate, the gain for the two years being 124 per cent., although this is chiefly attributed to the affiliation of established guilds. The Registrar proposes amendment of the existing law to enable him to cancel any branch which neglects, after due warning, to furnish requisite returns. The total membership in January, 1903, was 91,014, and the fund reached £784,467. At the end of 1903 the total had swelled by 3030, and 82,137 members were then entitled to benefits. The death rate per thousand varied between 2·7 in the I.O.R. and 14·1 in the S.D.T. but this does not necessarily indicate the relative health or soundness of members, since the Rechabites have a preponderance of young members, and the S.D.T. a large percentage of old members. In the case of the H.A.C.B.S., death experience appears to be above the average. In 1903 there were 15,718 persons sick for an aggregate term of 93,439 weeks, and the sick pay drawn was £74,017. Nearly 20 per cent. of those in full membership obtained sick assistance. The average illness lasted 5·9 weeks, at a cost of 15s 10d a week. In 1903 there were 703 deaths, and £22,441 went as funeral benefits, or about 4s 10d a head of the membership. For the same year £78,858 was paid for medical attendance and medicine, of about 17s a head. The total receipts for 1903 were £306,562, and the expenditure £239,429. The report comments upon the disposition of the funds, and makes a number of suggestions for alteration and improvement. The total amount spent on management in 1903 was £38,126, or equal to 8s 3d a head. The ratio of management expenses to the total income varied for the various societies between 15·7 for the S.D.T. and 11·1 for the M.U.I.O.O.F. Under the heading "Illegal Use of Funds," reference is made to meeting management expenses out of the sick and funeral funds, a practice which the Registrar declares "must cease." In 270 management accounts at the end of 1903 the benefit funds had been wrongfully used. The report concludes with a comparison between the funds and membership of the friendly societies of the various States. Victoria leads with 101,717 members, with an average per member of £14 10s 1d, while New South Wales has 94,044 members, having each £9 1s 1d to their credit.

Medico-Legal and Medico-Ethical.

An action against a Medical Man.—In the No. 1 Jury Court, Sydney, December 12th, before Mr. Justice Pring, Miss Elizabeth Mary Nevell was awarded £50 damages in an action brought by her against Dr. Neville R. Howse, of Orange, N.S.W., for alleged negligence in connection with an operation. The plaintiff had consulted the doctor, and was informed that she was suffering from hydatids, for the removal of which an operation would be necessary. At his suggestion she, on November 7th, 1904, entered the private hospital of Nurse Hart at Orange, and an operation was performed on her by the defendant on November 9th. The surgery was skilful, but the patient collapsed under the influence of the anæsthetic, and to revive her hot dabs and hot-water bottles were applied to her body and limbs. Subsequently it was ascertained that her ankles were burned, and this burning proved to be so severe that she has not yet recovered the use of her legs. On behalf of the plaintiff an endeavour was made to show that the burning occurred before the operation, owing to the fact that hot-water bottles were left on the operating-table. In summing up, his Honor said that if he had been asked for a nonsuit at the close of the plaintiff's case he would have felt called upon to give it. While returning their verdict in favour of the plaintiff, the jury said that no reflection was cast upon Dr. Howse's reputation, professional or otherwise, and that although the hospital was not under Dr. Howse's control or management he unintentionally allowed the plaintiff to remain under the impression that it was. A stay of proceedings, with a view to an appeal to the Full Court, was applied for, and granted.

Thirlmere Consumptive Home.—A street collection organised by the Lady Mayoress of Sydney in aid of the funds of the Home for Consumptive Women at Thirlmere was taken up in the city and suburbs on December 2nd by a number of ladies, and was somewhat on the lines of the Hospital Saturday collection. The headquarters of the movement was the Town Hall, where the city treasurer, Mr. S. H. Solomon, and his staff officiated as bankers. The Lady Mayoress presided at the principal stall. The total amount realised for the day was £305 5s 10d.

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

"Occult Bleeding."

In the *Scottish Medical and Surgical Journal* for September, 1905, Boyd gives a critical review of recent work done in Germany on this subject. The occurrence of blood in the stools which is not demonstrable either macroscopically or microscopically has been termed by Boas "occult bleeding." This sign is of importance from a diagnostic point of view. Everyone is familiar with the difficulty of differentiating early gastric carcinoma, achylia gastrica, and certain nervous affections of the digestive organs. A number of writers claim that a diagnosis of early carcinoma of the stomach can be determined by demonstrating the presence of occult bleeding. The methods of demonstration are as follows:—A portion of the suspected stool (2 to 3 grammes) is rubbed down in a small porcelain dish with 20 c.c. water until completely mixed. To the mixture is added one-third of its volume acetic acid and shaken up with 10 c.c. of ether. If the ether extract which floats on the surface is not clear a few drops of alcohol are added to clarify. The extract is then tested with (*a*) the guaiac test, (*b*) the aloin test. (*a*.) Two c.c. of the extract is taken, 10 drops of *freshly* prepared guaiac tincture, and 10 to 20 drops of old ozonic turpentine oil is added. With the presence of hæmatin an intense blue colour is obtained in a few seconds, which ultimately becomes reddish-violet. Care must be taken in shaking the test tube not to bring the skin of the fingers in contact with the mixture, as the sweat of the skin gives a fallacious positive result. Positive results are said to be given by blood in a dilution of from 0·0008 to 0·00005. Difficulty in the application of the test may arise from the inefficiency of the turpentile oil. Hartman advises standing the oil in open dishes for eight weeks, by the end of which time it has become sufficiently ozonised. Kuttner advises the use of peroxide of hydrogen instead of the turpentine oil. (*b*.) The aloin test is applied in the same way, *fresh* tincture of aloes being used instead of the guaiac tincture. The test gives a positive reaction in the presence of hæmatin by striking a clear red colour, quickly passing into a cherry red. This colour appears rapidly, and a positive reaction must not be assumed if the colour only becomes rose-red after standing some hours. A very necessary precaution is the use of freshly-prepared aloin tincture each time, as old tincture will strike a red colour without the presence of hæmatin. A reliable demonstration of occult bleeding cannot be obtained unless flesh can be excluded from the diet. The patient must, therefore, be kept on a flesh-free diet for at least three days before making the observation. Boas and Kochman report examinations on 257 cases of different stomach and bowel affections. These results divide themselves into three groups. In the first group, which includes cases of gastritis, anacida and subacida, hypersecretion, atonic dilatation, and the neuroses, blood was never found in the stools. In the second group, comprising cases of simple ulcer, gastric or duodenal, and ulcer stenosis, blood was occasionally found. In the third group, which consists of cases of gastric carcinoma, blood is always found. Hartman found blood in all his cases of simple ulcer. He draws attention to the importance of this observation in the explanation of cases of chronic gastric pain with anæmia, the probable cause of the anæmia being found in occult hæmorrhage from a chronic ulcer. Hartman also maintains that the systematic examination of the stools in this way will enable one to establish the diagnosis between hysterical or neurasthenic gastralgia with hyperchlorhydria and gastric ulcer. In carcinoma cases Hartman gives results in 17 cases of gastric carcinoma, 3 cases of carcinoma of the gall-bladder, with perforation into the intestine. In these cases the stool examinations were positive in all except three, and in the negative cases the post-mortem examination proved the patients to be suffering from scirrhus carcinoma of the pylorus without any ulceration. In one of his cases of gastric carcinoma there was no gastric motor stasis, no lactic acid; free hydrochloric acid was present, and no tumour could be detected by palpation under chloroform. The blood test was constantly positive, and operation revealed the presence of gastric carcinoma. A similar result was obtained in a case of carcinoma of the colon. The author concludes that when with diminished hydrochloric acid secretion and good gastric motility the systematic examination of the stools gives a uniform positive result; then, though other clinical symptoms are absent, the diagnosis of carcinoma is established and a benign affection is excluded. Schloss has confirmed the conclusions of Boas, Kochman, and Hartman. From these observations one must conclude that in the demonstration of the presence or absence of occult bleeding we have a very valuable clinical sign—valuable as an aid in the differentiation of achylia or gastritis anacida from early carcinoma. The sign will also be of great value if Hartman's observations are correct in the diagnosis of hyperchlorhydria and gastric ulcer. The test can be applied to vomited matter, but not to stomach contents obtained by the stomach tube, nor can certain conclusions be reached from an examination of the fæces if the stomach tube has been recently used. The gastric mucosa is so friable that even a soft stomach tube may cause bleeding. After the use of the tube, therefore, accidental hæmorrhage may give rise to error.

Arterial Hypertension and Indicanuria in Nephritis.

Houghton (*American Medicine*, October, 1905) discusses briefly some of the chief points in the pathology of uræmia, and states that Bouchard and his pupils were particular to emphasise the fact that indol and other products of proteid putrefaction are concerned in the intoxication of uræmia. Indol poisoning resembles that of uræmia in many particulars, and the presence in the urine of nephritics of large quantities of ethereal sulphates, far above what may be considered normal, is pretty good evidence that its presence is not devoid of baneful effects. It seems probable also that many of the symptoms of uræmia are dependent upon increased blood pressure. Keeping these facts in mind, the author endeavours to show that there is some sort of relationship between the arterial hypertension of uræmia and the amount of indican in the urine. He gives particulars of four cases, with records of the specific gravity of the urine, the amount of albumin, the amount of indican, and the blood pressure. These were treated with naphthalin in five-grain doses three times a day, and no other treatment. The observations show that with the progress of the treatment the amount of indican steadily fell, and the blood pressure was also considerably reduced. On ceasing the administration of the drug, the indican increased again and the blood pressure rose. The author then discusses the question as to the action of the naphthalin in reducing the blood pressure and in reducing the amount of indican in the urine. The absence of indican from nephritic urine does not exclude the existence of intestinal putrefaction. In conclusion, he remarks that when in the course of nephritis characterised by high blood pressure there is indican in the urine, treatment designed to lessen the amount of proteid putrefaction in the bowel will have a tendency to lower blood pressure by preventing the absorption of substances, which although rapidly eliminated with a normal kidney are allowed to accumulate in the blood and other organs of the body by reason of the reduced kidney capacity. It is also suggested that the amount of albumin in the urine under conditions indicated above seems to bear no relation to the rise and fall of indican content. So far as urea is concerned, it must be remembered that urea is a normal constituent of the urine, and that its excretion is accomplished physiologically without irritation. But this cannot be said of indol and allied substances, which are quite as irritating as the xanthin bases. The practical application of the conclusions in the prognosis and treatment of interstitial and diffuse nephritis is important. If, for instance, the casein of milk breaks down into indol rather than into peptones and proteoses, its use will do more damage than good, and this will be found to be true particularly when milk is used exclusively. On the other hand, if the normal intestinal bacterial equilibrium can be maintained, proteid food may be allowed, and in this way a natural method of combating the anæmia of nephritis presents itself. In any case it is better to prevent one of the causes of heightened blood pressure in nephritis than to administer vaso-dilators to neutralise its bad effects.

The Diagnosis of Heart Lesions.

Ellis (abstract in the *Medical Record*, September, 1905) draws attention to some important points in the diagnosis of heart lesions, chiefly from the point of view of the medical examiner for life insurance, but still of great importance for the general practitioner. He insists that one should consider the conditions of the heart muscle, heart cavities, and the blood vessels. A bad heart "pump" with good valves and arteries offers a better prognosis than a good "pump" with bad valves and arteries. The matter of a murmur or not is of relative minor importance. To study the heart muscle one must bear in mind the signs which nature gives of myocardial changes due to hypertrophy, dilatation, fibroid, senile or fatty degeneration. These signs are tachycardia, brachycardia, arrhythmia, cardiac asthma, angina, dyspnœa, and vertigo. He summarises the common mistakes which are made in the interpretation of cardiac signs as follows:—1. An excited, nervous heart beating against the chest wall is often wrongly diagnosed as hypertrophy. 2. A loud systolic murmur, widely diffused over the left chest and behind, and disappearing with the anæmic condition, diagnosed as mitral regurgitation instead of a hæmic murmur. 3. A loud mitral systolic murmur clearly heard six months after typhoid fever, miscalled mitral regurgitation. In three months such a heart may regain its muscular strength, the dilated mitral orifice may contract to its normal size, and the leak prove to be only relative. 4. Flint's aortic regurgitation murmur heard at the apex, miscalled mitral stenosis, though the peripheral signs show the true nature of the lesion. 5. The omission to look for the aortic murmurs at the third and fourth left and second right interspaces because the sounds at the apex are clear. 6. Diagnosing a cardio-respiratory murmur heard about the apex, in the axilla, and behind, as mitral regurgitation. 7. A condition in which the apex beat is two inches to the left of the left nipple line, a heaving impulse, a clear first sound, an intensified second sound, with tense arteries, diagnosed as a normal heart. 8. An aortic systolic murmur, diagnosed as due to aortic stenosis when there is a strong aortic second sound, no cardiac thrill, and no low tension pulse. There are a number of other causes of an aortic systolic murmur besides aortic stenosis. 9. The greatest mistake of all—listening to a heart through the clothing.

The Stokes-Adams Syndrome.

Foley (*Boston Medical and Surgical Journal*, September, 1905) reviews the literature of this affection and records two cases. The first was that of a man, 57 years of age, with myocardial degeneration, the result of sclerosed coronary arteries, proved by autopsy. The second case was that of a boy of 19 years, in whom the symptoms came on three months after a throat affection, possibly diphtheritic, and who recovered apparently completely. In the treatment of this condition rest is of the first importance, though diet, tonics, and regulated exercise must not be neglected. During the paroxysms of the disease the diffusible cardiac stimulants, such as ammonia and the nitrites, are of value; atropin is also useful. The recumbent posture favours the return of blood to the brain, and one patient could prevent an attack coming on by adopting this attitude. Rest and good feeding are said to have caused the disappearance of the attacks without producing any alteration in the character of the pulse.

PATHOLOGY.

The Pathological Anatomy of Exophthalmic Goitre.

MacCallum (*Johns Hopkins Hospital Bulletin*, August, 1905) reports that in a series of 28 cases of this disease there has been found a lesion, similar to that described by Farner, with great constancy, although not always in the same degree. Characteristic changes are to be observed in (1) the form and size of the alveoli, (2) the character of the epithelial cells, (3) the character of the colloid, (4) the vascular supply, (5) the connective tissue framework, (6) the lymphoid structures of the thyroid. The alveoli vary greatly, many of them show remarkable folding of the epithelium, so that the cavities appear to send off long diverticula, which may become constricted off from the remainder, and new alveoli are thus formed. Sometimes these new alveoli are very numerous, and surround the older ones in the form of a colony which may be outlined by the denser stroma which surrounds the whole. The epithelium may be altered from the flat or cubical type to the high cylindrical form. The cells frequently show mitotic figures and an abundance of fat granules in their protoplasm. Occasionally there occur in the walls of the alveoli very large cells with very large vesicular nuclei which are intercalated in the lining of the cylindrical cells. There appear also groups of cells or groups of alveoli lined with large irregular cells provided with deeply staining nuclei and with granular eosinophile protoplasm. The colloid is usually diminished in amount, and presents a ragged appearance. In some places it is homogeneous in appearance and fills at least some of the alveoli, but in many cases it is reduced to a shreddy vacuolated granular mass. It is usually retracted from the epithelium, being connected with it by threads which run to the lines between the epithelial cells, and there is left a thin covering of colloid over the surface of the epithelium. This appearance can be shown to be a retraction phenomenon and not due to the appearance of a colourless secretion over each cell. The colloid frequently contains desquamated cells and leucocytes. The vascular supply is extraordinarily rich, the veins being large and distended with blood. Their walls are very friable, and they lie embedded for the most part in the very abundant connective tissue framework of the thyroid, which is in all cases quite definitely increased in density, considerable bands of fibrous tissue being found to run through the gland and to cause a distinct lobulation of the tissue. In this interstitial connective tissue there is found also a great deal of lymphoid tissue in the form of circumscribed, scattered lymphoid nodules, and corresponding to this increase in the lymphoid nodules there is an enlargement of the neighbouring cervical glands and of the thymus. The thyroids in many cases show the presence of circumscribed prominent nodules composed of a more homogeneous tissue, which on section are seen to be made up of uniform, small round alveoli, usually widely separated from one another, and embedded in a hyaline connective tissue. These may or may not contain colloid material. Cysts of various sizes, usually containing a clear, greenish, glutinous fluid, may also occur. No bacteria or cell inclusions were demonstrated by any method of examination. The parathyroids were normal.

General Septicæmia.

Duval and Lewis (*Journal of Medical Research*, August, 1905) record the results of blood cultures in five cases of general septicæmia. The method employed was as follows:—After cleansing the skin surgically, blood is drawn from one of the large veins about the elbow into a 20 c.c. glass antitoxin syringe, the needle being new and sharp. From 10 to 20 c.c. of blood are taken, and the blood is plated at the bedside. Six to ten plates are made, adding 1 c.c. of blood to agar-agar mixtures of somewhat varying composition. If infection with the gonococcus is suspected the blood is dropped on the surface of dextrose agar-gelatine plates, which were previously poured and solidified; each blood drop is then spread over the plate surface with a platinum loop. When the bacillus typhosus or allied bacteria are being searched for, bouillon flasks as well as plates are used. If the nature of the infection is in doubt, injection of small quantities of blood into tubes of litmus milk, Lœffler's blood serum, and the various serum water sugar media. The litmus milk is specially useful in pneumococcus infections. The first case was one of infection with bacillus mucosus capsulatus. It was a man of 37 years of age, who was admitted to hospital with general pains, worse in the larger joints, and two days afterwards showed swelling of the right leg, which subsequently became markedly swollen and cyanotic, with diffuse purpuric mottling over the whole leg. This condition gradually extended to the right axilla. Recovery was complete in five weeks. The blood examination on three occasions showed a pure culture of bacillus mucosus capsulatus. It was remarkable that on the day of his discharge, when he felt perfectly well, there were more bacteria circulating in his blood than on admission, and two weeks after his discharge he was at work and feeling quite well. These facts seem to indicate that in addition to the acquired immunity to soluble bacterial toxines and the acquired bactericidal immunity, the human body may have other mechanisms of protection against bacterial infection. The tissues in this case seem to have acquired a resistance to the toxic products of the infecting organism without there being developed substances harmful to the bacterial cell. The next two cases were of gonorrhœal infection, with the clinical signs of rheumatism and heart involvement. In both of these the patients were discharged quite well, and in both pure cultures of the gonococcus were obtained from the blood. The fourth case was one of infection with the bacillus anthracis. The infection took place through a small cut on the chin while shaving. The patch was excised and the patient discharged well in three weeks. While under the anæsthetic, and before there had been any manipulation of the affected spot, the blood was examined and a pure culture of the bacillus anthracis was obtained. The virulence of this culture was evidently low, since only after two passages through mice, and subsequent passage through small guineapigs did these cultures become fully virulent. The study of this case shows that a septicæmia with bacillus anthracis is not certainly fatal to man, at least if the bacillus has a low grade of virulence. The fifth case was one of infection with the bacillus mallei. This patient died in twelve days after infection, and at the autopsy were found right-sided pneumonia, pleurisy and abscess in the lung, with multiple abscesses, acute hæmorrhagic leptomeningitis, and acute cellulitis of the scalp. The blood culture taken two days after admission showed a pure culture of bacillus mallei. The cultures taken from the abscess of the lung, beneath the scalp, and the abscesses over the arms and thigh showed bacillus mallei mixed with streptococcus pyogenes and staphylococcus aureus. The cultures from the blood during life, and from the post-mortem corresponded in every detail. The authors found that the addition of two to five per cent. of fresh defibrinated rabbit's or human blood to the tube of nutrient agar-agar makes a most favourable medium for the cultivation of the bacillus mallei. The cultures live longer than on the usual culture media.

PÆDIATRICS.

The Feeding of Atrophic Nurslings.

By G. Variot, M.D. (*British Journal of Children's Diseases*, July, 1905). Atrophic nurslings are children whose growth has been retarded by gastro-intestinal disorders. When, in 1892, the Belleville Dispensary was established in Paris we soon recognised that the great majority of our infant population is composed of feeding-bottle atrophics, reared on bad milk, and otherwise improperly fed. It is necessary to distinguish between the children whose growth has been temporarily arrested, but who can, under a sterilised milk diet, be set on the path to a healthy life, and the class of pronounced atrophics of the Parrot type, which are almost always incurable. For this reason we determined to restore in France the notion of infantile atrophy, which is admitted abroad. The chief function of a child during the first year of life is to grow; at the end of the first 12 months of life the child should be three times its weight at birth. Although both in France and abroad attention has been given to the proper nourishment for healthy infants, there has been considerable neglect of the class of atrophics who frequent our "*gouttes de lait*" (dispensary for infants). Since the rearing of the latter is more difficult than that of healthy infants, it demands the greater care. Diet ought to be studied more closely, and its constituents and quantity calculated more scientifically from cases under observation. This is the work we have undertaken since we organised our milk depôt at Belleville. I would first record briefly the methods of determining the amount of food required by healthy infants. Attempts have been made to calculate theoretically and mathematically the quantity of milk necessary to provide the proper number of heat units produced by the child and recorded on the calorimeter; to this is added a quantity to permit the proper gain in weight. Calculations thus made led to results of which the precision has been exaggerated, but which coincided approximately with opinions formed from direct experience. The table in use at the Belleville Dispensary is as follows:—One part water two parts milk—first week, 30 grammes every two hours; second week, 45 grammes every two hours; third week, 60 grammes every two hours. One part water three parts milk—fourth week, 75 grammes every two hours; second month, 75 to 100 grammes every two and a-half hours. Pure milk—third month, 120 grammes every three hours; fourth, fifth and sixth month, 135 to 160 grammes every three hours; seventh to twelfth month, 180 to 200 grammes every three hours. This scale has been calculated in accordance with the variations of the normal capacity of the stomach of exclusively breast-fed infants. The children were weighed both before and after each feeding. The aggregate weight of the milk taken in 24 hours was thus found, and this quantity was divided by the number of times the child was given suck, the result being the capacity of the stomach. It has been suggested that 10 per cent. of the body weight should be given as the daily allowance. That quantity is probably insufficient. Atrophic infants certainly require more. Prematurely-born children may require 20 per cent. or more. But before a special study of feeding in special circumstances we must consider the different clinical varieties of infantile atrophy. First, there are the breast-fed atrophics, mostly due to insufficiency of the mother's milk. Atrophy in breast-fed babies results much less frequently in gastro-intestinal disorder. In this class also we find a small number of underfed children, entrusted to negligent and unnatural nurses who do not give food to their charges as often as they should. But more often atrophics are overfed. This is the type with which we are all so familiar. The trouble is due both to the bad quality and the excessive quantity of the milk, administered at irregular intervals. Another class may more properly be described as surcharged than overfed. Fearing to give them too strong milk, the mothers add twice or at least an equal quantity of water. This overloading is the great cause of vomiting. A further type is the infant of 5 to 8 months who has been fed with all sorts of improper diets, such as soup, potatoes, milk puddings, etc. With regard to athrepsics, a few only may be saved with difficulty, especially if they have passed six or eight months (the term "athrepsia" includes those infants whose weight is less than 50 per cent. of the normal). In severe forms of infantile atrophy the nurse is often to blame as well as the bottle. The ignorance, carelessness and laziness of nurses is a chief cause of mortality amongst artificially-fed children. I have found in Breton villages that the mortality among infants raised on the bottle by their mothers is 12 to 15 per cent., whilst according to the accoucheurs the death-rate among bottle-fed infants sent out to nurse reached and passed 30 per cent. during the first year. We will now consider what rules should govern the diet of these children. Milk should be given to the exclusion of every other food for the first eight months of life. Human milk is the best, of course, but can only be given by means of a wetnurse. Wetnurses are too expensive for poor people, besides the industry is fundamentally immoral and should not be encouraged. From an experience of ten years amongst thousands of children, I am convinced that sterilised milk of good quality, carefully prepared and employed methodically, suffices in the great majority of cases to cure atrophics. I have not been satisfied with asses' milk in these cases. Asses' milk is a thin milk resembling human milk, but is much poorer in fat. Perhaps this poverty in fat fails to meet the requirements of the atrophic, who usually needs a good deal of nourishment. The price of asses' milk is too high (5 or 6 francs a litre in Paris) for the poor. The same remark applies to modified milk, peptonised milk, etc. I prefer milk sterilised commercially at 108° C, brought from Normandy to Paris in half-litre bottles. Others have reported similar success with sterilised milk. Their weight may show no increase for weeks or even months after the adoption of the sterilised milk treatment; but if they receive good milk from the mother or a good nurse their return to a natural progressive weight increase is only a question of time. As to the quantity of milk to be given, that is a much more difficult subject than in healthy infants. Seven years ago I had the idea that the quantity might be determined by the weight of the child; that I soon discovered to be an error. I have, therefore, had to renounce systematic graduation in the artificial feeding of those infants. We must proceed tentatively, determining the tolerance of the stomach and intestines, and judging of the progress of the child by systematic weighing. The food should not produce gastro-intestinal irritation. During the initial period of weight stagnation the tolerance of the digestive organs for the milk is the sole guide, because the weight remains stationary. Later, when the process of assimilation has been re-established the size of the meal may be increased more or less rapidly, according as the weekly gain in weight is small or great.

In the *October* number of the *British Journal of Children's Diseases* there are notes of a fatality after exploratory puncture of the chest for fluid. Death took place almost immediately and was due to hæmorrhage. At the post-mortem examination the seat of puncture in the lung was found to be affected with a chronic tuberculous inflammation with caseous foci, there being no healthy lung tissue there.

In the *August* number of the same journal another fatal case of the same accident is recorded by Dr. Porter Parkinson, in a child 4 years of age. The diagnosis was "chronic interstitial pneumonia," but the chest was explored in order to exclude the presence of fluid. The child died within two minutes of the puncture. At the post-mortem examination the lung was found to be cirrhotic; one or two of the bronchi in the lower lobe were full of blood. The stomach was distended with blood-clot. The needle had entered the lung well above the diaphragm. *Dr. George Carpenter*, in an editorial in the *October* number of the same journal, has been able to collect 11 such cases from the literature, 7 in children. Death in some of these cases (probably in most) was due to hæmorrhage. It is interesting to note that in 8 or perhaps 9 of these 11 cases the condition of the lung was a chronic pneumonia. It should, therefore, be a rule in practice never to explore a case of fibroid pneumonia, and never to regard exploratory puncture of the lung as a trifling operation.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

National Deterioration—Scarlet Fever in London—Tuberculosis Congress—Last Year's Inquests—The Growth of Temperance—Non-Malignant Affections of the Stomach—Japanese Surgery during the War—Juvenile Education.

THE question of race degeneration is one which of late has been very much in the public eye, and though some have come forward to denounce as unwarrantable the note of alarm which has sounded from so many quarters, the large proportion of those who take a well-informed and philanthropic view of sociological development are unwillingly compelled to admit that the present trend of events is in the direction of a lower rather than of a higher level. We have become accustomed to the evidences which have been advanced to prove the existence of physical degeneration; and in a charge delivered to the clergy and churchwardens of London, in St. Paul's Cathedral, on October 19th, the Bishop of London has now come forward to tell us of the corresponding decay which is taking place in the moral and religious life of the nation. His Lordship is entirely on the side of those who believe that our virility is declining, and he ascribes much of the decadence to "the miserable gospel of comfort which is the curse of the present day." He made an earnest appeal to those who had it in their power that they should endeavour to convince the rich that their children should be better taught. He pointed out that in a recent committee report the master of one of our great public schools stated that out of a hundred boys who came to the school seventy-seven had received no religious education of any kind; and this ignorance of definite religious truth among the well-to-do classes was, the Bishop thought, nothing less than a national danger. He proceeded to say that "men and women who spend every Sunday on the golf links or on the river do it because they have no strong convictions to make them wish to do anything else. They do not go to church because they do not care about the things of which they will hear in church; they do not care because, when they were young and impressionable, they were never taught them, or never taught them in such a way as to make a living and lasting impression upon their lives and character for ever." Turning to the question of the birth-rate, he said he viewed its diminution with dismay. It had dropped from 34·3 per 1000 of the population in 1874-78 to 28 per 1000 in 1901, while at the same time the marriage-rate had increased. Unfortunately, the decrease in the number of births was not counterbalanced by the increase of quality. Crime and lunacy were more prevalent, and it was questionable whether the national physique was anything like what it was. A blight had gradually spread over the middle-class population of the land, and the true wealth of the nation—"the full-healthed, bright-eyed, and happy-hearted children"—had more or less gone down before it. He advocated teaching in suitable ways and at suitable times on the responsibility which married life entails, on the glory of motherhood, on the growing selfishness which thinks first of creature comforts or social pleasures, and then of the primary duties and joys of life. With much solemnity, and in words whose plainness of meaning leaves no loophole for misunderstanding, he said: "It is to stem this gigantic evil that I summon the forces of the Church to-day. The Roman Church—all honour to it—has never wavered in condemning such prevention of conception as a sin, and it would ill become the Church of England to condemn less clearly a practice which, if continued, must eat away the heart and drain away the life-blood of our country." Touching on the prevalence of secret commissions in trade, and the temptations which such a system provided for dishonesty, his Lordship stated that though there was no reason to assume English trade was universally or even generally infected by the poison of dishonest competition, it would be idle to suppose that there was not genuine evidence of the widespread prevalenc of such dishonesty, and of terrible difficulties in avoiding it on the part of large numbers both of employers and employed who desired to keep themselves free from taint. Dr. Winnington Ingram clearly sees the danger which is threatening the State, and he fearlessly calls attention to the penalties which must follow if the present condition of aimless luxury among certain sections of society are not amended. With no uncertain voice he told his hearers that they must learn themselves and teach others to live the simpler, harder life of their forefathers, for unless they amended their ways their glorious heritage must surely slip from their nerveless fingers.

There is at the present time a serious outbreak of fever in London. In the first fortnight of October there were 4892 patients suffering from infectious diseases in the hospitals of the Metropolitan Asylums Board, which is 800 more than in the corresponding fortnight of last year, and 2000 more than two years ago. The following admissions into the fever hospitals gives the situation in brief form:—Fortnight ending October 12th, 1359; preceding fortnight, 1355; corresponding fortnight 1904, 1120; corresponding fortnight 1903, 796. The records of the Asylums Board show that the highest number of scarlet fever patients in September of any year since that date is 1711, whereas in September of this year it was 2103. Cases increase as the winter comes on, and there is a record of 4169 scarlet fever patients on Novemebr 2nd; but the number is now 3954, six weeks before that date. In the last twelve weeks the daily admissions have twelve times exceeded 100, and with the South-Eastern Hospital closed for reconstruction, the situation is causing some anxiety. The hospital superintendents are loyally co-operating with the committee to meet the emergency, and there are still 428 beds ready for general use. In view of the circumstances, however, the hospital committee has recommended to the board that they should open the hundred beds in the two old pavilions of the South-Eastern Hospital—the hospital itself being closed—in case they should be needed.

On Monday, October 2nd, the International Congress on Tuberculosis was opened in Paris by President Loubet. The opening ceremony in the rotunda of the Grand Palais was attended by a large and fashionable crowd. The President, who was accompanied by the Premier, M. Rouvier, and several Cabinet Ministers, was received by Dr. Herard, Dean of the Paris Faculty of Medicine. Among those on the platform were M. Bourgeois, the honorary president of the Congress; Sir William Broadbent, Dr. Theodore Williams, Professor Pozzi, Professor Von Leyden, the German Emperor's private medical adviser; and Professor Berthenson, the Czar's physician. Ladies occupied the galleries. There were no fewer than nineteen speeches, and the Swiss, Bulgarian, Chinese, Russian, Swedish, Spanish, and Belgian delegates spoke in

French. Dr. Williams also spoke in French, as he saluted the Congress in the name of England. Professor Schjerning, who was in military uniform, addressed the gathering in German, while the Italian delegates spoke in Latin. In his speech, President Loubet declared that the State had a great part to play in preventing the spread of tuberculosis. The means to be adopted were to be studied by two Commissions from the Congress. He was not pessimistic about the prospect of a cure being ultimately found for tuberculosis. During the last forty years the medical profession had made great strides in the study of the disease, and he hoped fervently that the present Congress would place the scientific world a step further in its struggle against the scourge. Both morning and afternoon sittings on Tuesday were devoted to the reading of papers in the four sections into which the assembly is divided. The communications came from doctors of almost every European nationality, but there was no pronouncement of startling importance and no intimation of any discovery in regard to the bacillus or its toxins with which the profession is not already intimately familiar. On Wednesday the chief question which occupied attention was that of sanatoria, and finally a resolution was agreed to declaring that although the utility of sanatoria might be open to discussion, everything depending on the custom, habits, and local resources of each country—yet the principle of the sanatorium must be admitted, though it was not to be regarded as the only or exclusive means of combating the disease. On Thursday the work of the Congress was suspended and the day was devoted to visits to various sanatoria. The sensation of the day was created by the "Matin's" announcement that Professor Von Behring, the distinguished German *savant*, had discovered a new cure for consumption. The world has grown somewhat sceptical as regards cures for tuberculosis, so many have been introduced and proved worthless, but such an announcement from a man of the position and reputation of Dr. Behring, of Berlin, gave rise to hope that this time we might be on the threshold of a great discovery. According to the "Matin," Professor Von Behring was reported to have said: "Next August at the latest I shall be prepared to make known the new method for the cure of tuberculosis, which my work has enabled me to discover. It is neither serum nor vaccine matter. It is not only a preventative, but a curative method. As I did in the case of my discovery of the serum of diphtheria, I shall preserve the secret for some time. I will explain my method to everybody, as I have done already to Messrs. Roux and Metchnikoff, and I will leave to medical men the work of applying the remedy. I will keep my secret for some time, as I hold I have right of safeguarding for a time the profits of my discovery so that I may be enabled to make further researches." At the final meeting of the Congress on Saturday, Professor Behring made a statement in regard to his investigations, and stated in justification of his communication, that his researches in connection with tuberculosis had now reached a stage parallel to that just previous to the announcement of his discovery of anti-diphtheritic serum fifteen years ago. He explained that his curative principle was based on the impregnation of the living cells of the organism with a substance derived from the virus of tuberculosis, temporarily described as "T.C." When the "T.C." became an integral part of the organism of animals treated with it, it was called "T.X." This curative principle had been employed with success on animals, but had not yet been tried on human beings. Dr. Behring is convinced that it will be equally efficacious with men, and on his return to Germany the "T.C." will be handed to his *confrères* for experimental purposes. The statement of the distinguished Professor, which was made in German, and subsequently repeated in French by Dr. Fuester, was frequently applauded, but the general impression it created might be represented by a mark of interrogation. His hearers could not deny the weight of the speaker's authority, but the fact that the "discovery" had not yet been tried on human beings created disappointment, and the whole exposition was so vague and indefinite that it was regarded by many as premature and unreliable. At the termination of its session and after the resolutions drawn up by the different sections had been adopted, Dr. Von Leyden (Germany) congratulated the organisers of the Congress on their success. Drs. Theodore Williams (London), Gramme (Denmark), and Baccelli (Italy), who spoke in their respective languages, also expressed their thanks to the organisers of the Congress, and made reference to the hospitality which they had enjoyed in France. Dr. Thomseu (Roumania) and Dr. Raptchewski (Russia) also spoke. Dr. Herard, the president, who was surrounded by all the foreign delegates, announced that the next Congress would be held in the United States in three years time, and the Congress broke up amid loud cheers.

In his annual report, which has just been issued, Mr. A. Spencer, chief officer of the Public Control Department of the London County Council, states that 7391 coroners' inquests were held in the county in 1904, or 1·5 inquests per 1000 of the estimated population (4,625,965). The total of these inquiries in 1903 was 7245. The total disbursements to coroners last year were £18,247 13s 10d, an average of £2 9s 4d per inquest. The largest number of inquests took place in the following districts:—Central, Dr. D. W. Thomas, coroner, 1526; North-Eastern, Dr. W. Wynn Westcott, coroner, 1150; Eastern, Mr. W. E. Baxter, coroner, 1432; and Western, Dr. C. L. Drew, coroner, 716. Of the 7391 inquests, verdicts of death from natural causes were returned in regard to 3577, of wilful murder in 39 cases, manslaughter 18, suicide while insane 491, *felo de se* 3, accident or misadventure 2501. Open verdicts were recorded in 330 cases. No fewer than 466 inquests were on children described as "suffocated in bed with parents or others."

When the Chancellor of the Exchequer delivered his Budget speech he claimed that, as a nation, we were becoming more temperate. Although his contention was denied in some quarters, there were many who agreed with him. A recent communication to the *Yorkshire Post* by one who supports the Chancellor's views has attracted some attention. The writer bases some interesting conclusions on the influence of the falling birth-rate on the consumption of intoxicants. He claims that, roundly speaking, for each 100 of the population there were in 1881, 54 adults; in 1901, 58 adults—that is to say, the total population in those 20 years increased 25 per cent., but the adult population increased by 34 per cent. The birth-rate decrease became noticeable in the early eighties, it was doubly apparent in the next decade, and since 1900 seems to continue in accelerated ratio. Redistributing the consumption on the basis that persons under 20 do not drink, and that those over that age do drink or may drink, we get the following figures of consumption per capita of the population aged over 20 years:—1880-84, 1·94 gallons spirits, 51·2 gallons beer; 1890-94, 1·84 gallons spirits, 54·4 gallons beer; 1900-04, 1·81 gallons spirits, 52·4 gallons beer. The decrease in spirits is continuous, a noteworthy circumstance. In beer, the 1890-94 period shows an increase of, say. 6½ per cent. over 1880-84. Of more interest, because most recent, the last period shows but 2½ per cent. increased beer consumption over 1880-84. Whatever the reason, 1880-84 was of drinking the minimum period; and when we find the 1900-04 period on the corrected figures to be at least as good, and tending still better, the fact may be gladly accepted as evidence of progress. Concluding his review of the question, this correspondent remarks:—"The circumstance that our holiday crowds are within the last dozen years conspicuously more free from at least grossly visible excess in drink has been dwelt upon by dozens of descriptive journalists, and by multitudes of other social observers who have no special opinionative social reforming method in mind."

At the International Congress of Surgery held at Brussels in the beginning of September there was a discussion of considerable importance on the surgical treatment of non-cancerous affections of the stomach. A paper was read by Mr. Mayo Robson, of London, whose work on abdominal surgery is widely known, and the statistics quoted of the results obtained in his practice must go far to persuade those who are still conservative enough to dread the advent of the surgeon in a non-malignant stomach case, that surgery has now accomplished enough to claim a field of usefulness in many varieties of stomach disorders which are hopelessly rebellious to therapeutic management. Mr. Robson first referred to simple gastric ulcer, and pointed out that hitherto physicians have inclined to under-estimate the grave mortality of this disorder. He expressed agreement with Leube in his opinion that those cases of gastric ulcer which are not cured by medical treatment in four or five weeks will not be cured by it at all; and from his own experience he came to the conclusion that "at least 25 per cent. of all cases of ulcer of the stomach treated medically ultimately succumb to the disease or to one or other of its complications." When operation is decided upon, he performs, with few exceptions, gastro-enterostomy, and prefers the posterior operation, making the opening into the stomach close to the lower border and the opening into the bowel as near to the duodeno-jejunal junction as possible. In his reference to hæmatemesis Mr. Robson confined his remarks to two classes of cases—those of acute gastrorrhagia occurring in young anæmic women, and those associated with chronic ulceration. In the first class so many cases recover under rest and medicinal treatment that comparatively few are seen by the surgeon; but when the bleeding is intractable, or when it is recurrent, operative interference should be contemplated; in the second class the hæmorrhage is a mere symptom, the treatment of which is included in that of the causative condition, and has already been referred to. Secondary dilatation of the stomach frequently demands surgical measures for its relief, and here again Mr. Robson prefers posterior gastro-enterostomy to any other operation. He has also frequently found this procedure completely cure the tetany which occasionally arises as a serious complication of dilatation, and is no doubt caused by the accumulation of toxic material in the stomach and its absorption into the blood. In speaking of new growths of inflammatory origin, attention was drawn to the large number of cases in which a tumour was present in the stomach closely resembling cancer in everything except its long duration, and in which complete and permanent cure resulted after gastro-enterostomy. It is a matter of common knowledge that many of these cases baffle the most careful and prolonged investigation, and, in regard to them, Mr. Robson expresses his unwillingness "to deny a patient the benefit of surgical treatment, even in the presence of a tumour suspected to be cancer, unless enlarged glands and ascites prove definitely the malignant character of the growth." The existence of hyperchlorhydria, accompanied, as it usually is, by feelings of pain and discomfort at the end of digestion, which are relieved by the taking of food, is, in Mr. Robson's opinion, generally, if not always, associated with ulcer of the stomach or of the duodenum, or both. In all obstinate cases where hyperchlorhydria persists in spite of careful treatment—and in many where a persistent gastralgia, without evidence of actual ulceration, reduces the patient's strength to a serious extent from inability, because of the pain, to take sufficient food—he claims that the relief which may be obtained from gastro-enterostomy should not be lost sight of. Finally, Mr. Robson felt himself justified in entering a mild protest against trusting non-malignant stomach affections too long to the tender mercies of the physician when it is conclusively proved that, if handed over to the surgeon in time, they can be effectually cured, and that with little risk.

At the Convention of Military Surgeons in Detroit an interesting description was given on September 26th by Surgeon-General Suznki of the surgical methods adopted by the Japanese in the naval part of the recent war. Much of the success which was achieved in the treatment of wounds was due to the fact that before an engagement each member of the crew of a warship was compelled to bathe and to dress in clean underclothing. In gunshot wounds fragments of underclothing were often carried into the body, and by insistence on clean underclothing many cases of septic poisoning were prevented. Since it was important that the vision of gunners should be of the best, the eyes of every gunner were carefully examined before each engagement, and whenever any defect was found which did not yield to immediate treatment, the man was transferred to another station and his place filled by one whose eyes were perfect. During the progress of the battle the crews were supplied with water containing boracic acid to wash the powder, smoke and dust out of their eyes. There was also issued to every man in the fleet a cotton plug for the ears to prevent injury to the tympanic membranes from the concussion of the big-gun fire. Immense quantities of extra heavy clothing were supplied for those engaged in winter operations before Port Arthur, and there had not been a single case of frost-bite. The distribution of wide-brimmed straw hats in summer prevented sunstroke. It was found impracticable to attempt more than the requisite first dressing of severe wounds while an engagement was in progress. After action all important and absolutely necessary surgical operations should be performed, but where possible the wounded should be hurried to the base hospital before being operated upon. Japanese experience showed that surgeries should be located below water-line to avoid exposure to the enemy's fire. The speaker urged the necessity of removing from the decks of warships all objects not necessary to the fighting of the ship. He described how twenty-three men had been killed and wounded on the "Mikasa" by the fragments of a semaphore which was struck by a shell.

On the occasion of the opening of new secondary schools at Bradford on September 27th, the Marquis of Londonderry, President of the Board of Education, expressed his views on the physical and mental education of the young. He declared himself to be a firm believer in physical training, and thought children should be properly exercised, taught to be erect, to expand their lungs, and to think for themselves. In carrying out these objects, the Board of Education had no right to trespass on the duty of the parents, whose business it was to watch over the health of their children. For the under-feeding of children and the poverty under which parents might suffer the Board of Education were in no way responsible. Their duty was to promote physical education and give proper instruction in hygiene, but he did not for one moment admit that it was the duty of the Government to provide food or clothing for children who were supposed to be underfed or badly clothed. The only duty of the Board of Education was to give children the education the country provided, and beyond that they had no responsibility whatever. The feeding of children was a subject to be considered by the country as a whole. Undoubtedly a great deal had been done by voluntary effort, and that should be encouraged. He had done his best to encourage the feeding of poor children by having a departmental committee to inquire into the whole question as to what could be done under the present circumstances. Until that committee reported upon the matter he would decline to express any opinion. Educationalists had long realised that there should be in this country a college of the character of the Charlottenburg College in Germany, and he did not think he was too sanguine when he said that the time was not far distant when they would have such a college in England.

Tasmania.

(FROM OUR OWN CORRESPONDENT.)

Public Health Report.—Launceston Hospital.—Army Medical Corps.

THE report of the Department of Public Health for the year 1904-5 contains nothing of a startling or sensational character. Tasmania has remained free from epidemic disease of a serious character, thanks to her good fortune and natural advantages, rather than to any care which the State might have given to her defences against the invasion of disease. In the words of the head of the department, effective routine measures against endemic disease are impossible, and the introduction of exotic epidemic diseases must be attended with the gravest possibilities; the explanation of this state of affairs is failure of the Government to provide funds for the purpose of carrying out the Public Health Act. At present the total expenditure deemed sufficient, amounting only to £1765, or 2·35 pence per head of the population, compared with New Zealand's 11·66 pence per head, and New South Wales' 7·44 pence per head. The Vaccination Act remains a dead letter; there is no qualified sanitary inspector attached to the department; there is no attempt at the protection of the public from adulterated food by proper systematic examination; there are no laboratory facilities for the examination of suspected cases of exotic disease or for the systematic examination of endemic disease. Surely a heavy enough indictment against any Government which so starves a department upon which the lives and health of the citizens depend, but hardly surprising when we know that the same Government has equally disregarded the findings of the Royal Commission on Hospitals alluded to in this report, which revealed many scandalous abuses existing, particularly at the Launceston General Hospital and the Asylum for the Insane. Notwithstanding a parsimonious and indifferent, if not hostile Government, the Department of Health has, however, effected some good work: school hygiene has received well-merited attention; the sanitary administration of Hobart and Launceston has been progressive, while some of the towns, like Devonport, Burnie, Strahan, etc., have displayed commendable activity; and much good work has been quietly effected by the influence exerted by Dr. Elkington during his periodic visits of inspection throughout the State.

The Launceston Hospital abuse is becoming daily a greater scandal; to this, a Government charitable institution, patients are admitted without the slightest enquiry; people of property, people with incomes, ranging in some cases to £1000 per annum, are treated as indoor and outdoor patients, while some members of the hospital board actually canvass for and offer orders of admission to people who can well afford to pay. Dr. Pardey, one of the honorary medical staff, has spoken out on the subject, and is moving *re* the appointment of an enquiry officer, and the publication of the names and financial conditions of the patients admitted.

Last week a class of instruction in connection with the Army Medical Corps was held at Hobart by Surgeon-General Williams; Major Gillin, Captains Skinner, McCall and Lines being in attendance. This is the first course of its kind which has been held in Tasmania, and the members of the A.M.C. are unanimous in their appreciation of the efforts of their talented and esteemed commander-in-chief.

LANDRY'S PARALYSIS

(To the Editor of the Australasian Medical Gazette.)

Sir,—Dr. Joske reported a case of Landry's paralysis in the last number of the *A.M.G.*, and I may be permitted, as the disease is so rare, to mention one which occurred not long ago in my own practice, in which the legs were at no time affected.

P.B., aged 35, sent for me one Sunday morning, and on my arrival he laughingly told me he had the most extraordinary feelings of pins and needles in his hands. On examination, he could move his fingers very well, in fact he was continually opening and shutting his hands, but his grasp was not as firm as it ought to have been. In the afternoon the tingling feeling had extended up the arms and the grasp was still weaker, and late that night he could hardly grasp at all. Next morning (Monday) his hands were quite paralysed, and in the afternoon when Dr. Love saw him in consultation with me the paralysis had extended up to the elbows. As he was in a hotel it was considered advisable to remove him to a private hospital. On seeing him late that night I found the paralysis had extended upwards rapidly, his arms being quite powerless from the shoulders, his breathing was difficult and quick, the pectoral muscles being evidently affected, his speech was thick and he spoke with difficulty, and he was in a pitiable condition. At no time were his legs affected. He died the next morning, the duration of the illness being just 48 hours.—I am, etc.,

Brisbane. W. S. BYRNE, M.D.

OBSTETRIC PRACTICE.

(To the Editor of the Australasian Medical Gazette.)

Sir,—Some leading obstetricians have expressed the opinion, according to public and private correspondence now before me, that every medical attendant who is engaged for accouchement of a primipara should solicit consent to a pelvic exploration per vaginam as soon as possible, also that at the end of every labour a careful examination of the genital tract should be made with the speculum.

Reasons which are obvious to the profession may not be properly appreciated by patients and their relatives. Any ultimate untoward result due to causes beyond control may be attributed retrospectively to either procedure, upon which ignorant, hysterical, or malicious misrepresentation may be readily based.

If a decisive authoritative direction can be quoted upon the subject it will support and protect general practitioners in adopting, as a routine, methods which by some may be regarded as innovations of doubtful expediency.—I am, etc., WALTER SPENCER.

Enmore, Dec. 4th, 1905.

THE EXTRA-PERITONEAL TRANSPLANTATION OF THE URETERS INTO THE RECTUM IN ECTOPIA VESICÆ.

(To the Editor of the Australasian Medical Gazette.)

Sir,—Both Dr. Lendon and Dr. Newland are to be congratulated on the successful results in their treatment of their cases of this distressing malformation. There can, however, be no claim for originality, for if Dr. Newland will refer to Heath's Dictionary of Practical Surgery (second edition, 1887), vol. 1, page 426, he will find a reference to a case in which Mr. Thomas Smith, of St. Bartholomew's, London, had tried the same operation; and in "The Surgical Diseases of Children," by Owen (second edition, 1889), he will find reference to the ureters having been laid into the rectum as one of the means of treating this condition.

With regard to Dr. Newland's own case, I am not a little surprised at his reiterating the statement that a plastic operation had twice been unsuccessfully performed in the Adelaide Hospital. The operation performed at the Adelaide Hospital was the implantation of the ureters into the rectum. Failure was attributed mainly to the child (then only two years old) being very restless and uncontrollable. The parents were advised to wait till the boy was about seven and then come back to me. I told Dr. Newland this when he showed the case at an ordinary meeting of the British Medical Association a few months before the Congress. The operations were done by me in April, 1900; and as Dr. Peters, of Toronto, had a case in 1901, and I believe Dr. Lendon's was in the same year, so if there were any originality to be claimed it would be for me to claim it, but I have already shown the idea is by no means a new one.

In this I can cordially support Dr. Newland and Dr. Lendon, viz., it is the operation to be preferred. When successful, the final result is most satisfactory. The operation itself is simple, it causes little or no shock, and the relief is obtained from the first, and we are spared the numerous stages of the flap operation. Age is an important factor, and it is necessary to wait till the child gets some self-control.—I am, etc.,

LEONARD W. BICKLE, F.R.C.S. (Edin.)

Adelaide, S.A., Dec. 2, 1905.

DIGITALONE.

(To the Editor of the Australasian Medical Gazette.)

Sir,—In my notes on a hundred consecutive sections published in the last issue of the *Australasian Medical Gazette*, the paragraphs on digitalis were unintelligible, owing to a printer's error. What I wanted to bring out was that I had ceased to use digitaline, as I had obtained no satisfactory results with it, and I was now employing digitalone in its place. This is a fluid extract of digitalis specially prepared by Parke, Davis and Co. for hypodermic injection. I employ it in seven minim doses under the skin every three hours, and it causes no local trouble whatever. I might add that in order to get the best results from digitalis after a section it should be administered for a week before the operation; then if the drug is called for after the operation one finds that the patient responds much more readily to the hypodermic injection.—I am, etc.,

Sydney. W. J. STEWART MCKAY.

OBITUARY.

DAVID WIELD, M.A., M.B., M.S., 1891, M.D. (Edin.), 1894, Brisbane.

By the untimely death of Dr. David Wield, the medical profession in Queensland has been left all the poorer; many others of us could have been better spared.

After a sharp illness of a week, Dr. Wield succumbed to double pneumonia on Sunday, November 19th. His health had not been all that could have been desired for the past three months, as several attacks of dry pleurisy had awakened apprehension of recrudescent tubercle, from which it was known he had suffered before coming to Queensland five years ago.

Dr. Wield, shortly after his arrival, took charge of the Contact Hospital in the early days of plague in 1900. Since then he has acted as honorary medical officer to the Children's Hospital, the Lady Bowen Maternity and the Brisbane General Hospital, to which latter he was assistant gynæcologist. For the past year he has acted as hon. secretary to the Brisbane Branch of the British Medical Association, and the esteem and affection which he won from his colleagues may be gauged from the fact that when he was laid to rest nearly half the medical men in Brisbane attended to pay their last tribute of respect.

It is difficult, so recent is our loss, to put in words the grief we feel—to realise

> "An awful thought, a life removed,
> The human-hearted man we loved:
> A spirit, not a breathing voice."

For David Wield claimed from all of us our deep regard for his never-failing courtesy, his untiring efforts in his work, and his ready help in everything for the advancement of the best interests of our profession. His cheery optimism carried him through difficulties when his state of health should have counselled more rest and less effort.

Dr. Wield was only 38 years of age, of which the last five were spent in Queensland; but he had lived long enough for his untimely death to have left its mark deep upon the feelings of his colleagues. He leaves a widow and two young children.

George Henry MacSwinney, M.D., M.Ch., Queen's University (Irel.), 1871, Chatswood, N.S.W.

We regret to record the death this month, at Chatswood, of Dr. MacSwinney, who returned from a visit to England about a month ago. He was born at Galway, Ireland, in 1850, and graduated as above in 1871. He soon afterwards received an appointment in Ceylon under the Imperial Government, and was married at Colombo to Miss C. C. Holcombe, the second daughter of Dr. Holcombe, of Liverpool, England. He had to leave Ceylon on account of a severe attack of dysentery, and then practised for five years in London, at West Kensington. On account of a prolonged attack of albuminuria he came to this State in 1884, and started practice at Petersham, at which place he remained for 14 years. Ill-health again compelled him to give up practice for a time. After remaining in Chatswood for about six years he went to Western Australia for a short period, and there suffered from an attack of cerebral hæmorrhage. He then paid a visit to England, and had only returned about a month when his death took place quietly and unexpectedly. No one in the profession could have been more honourable than he; a good friend, a witty companion, and unselfish in his professional dealings, he aided many who will bear him in kindly remembrance. He was one of the originators of the Western Suburbs Medical Association, the formation of which marks an era in the medical history of New South Wales. He was its first president, and was also popular with the members. He also was a member of the Council of the N.S.W. Branch of the British Medical Association for some years. Dr. MacSwinney was a kindly, genial man, but one whose usefulness was lessened by his ill-health and by the chronic insomnia from which he suffered. He was very loyal to the profession, a general favourite, and one who will long be remembered for many kindly deeds.

William Augustus West, L.R.C.S. (Irel.). L.K.Q.C.P., L.M.K.Q.C.P., Glebe, Sydney.

We regret to record the death of Dr. William Augustus West, who practised at the Glebe, Sydney, for the last 22 years. He was the fourth son of the late George White West, barrister, of County Kildare, Ireland, and was educated in Dublin, obtaining the qualifications L.R.C.S. Irel. in 1879, L.K.Q.C.P. in 1880, and L.M.K.Q.C.P. also in 1880. He then came out to Sydney and joined his brother, Dr Annesley West, at the Glebe. After a year or two he returned to Ireland to pursue some further medical study, and returning to Sydney remained with his brother as his assistant in practice until the death of Dr. Annesley West, which took place in 1885; he then succeeded to the practice. Dr. W. A. West was for several years alderman of the Municipal Council and took much interest in all that concerned the borough. He was fond of sport, particularly horse racing and bowls. Some few weeks ago he complained of being run down and consulted some of his professional brethren. Acting on advice, he went to Medlow Bath, on the Blue Mountains, for a few days, but getting worse, returned home and took to his bed, suffering from double lobar pneumonia. Symptoms of heart failure appeared and left hemiplegia suddenly developed, and he died at his residence, Stoneleigh, Liverpool-road, Summerhill, on December 11th. He was attended by Drs. Purser and Hinder, as well as by several other practitioners, in the course of his illness. He leaves a widow and two children. The funeral took place on December 12th and was largely attended. Dr. West was an able practitioner, and was very popular not only with members of the profession, but with the public generally.

Mr. R. H. Dunn, M.R.C.S. (Eng.), 1856.

Mr. R. H. Dunn, who for 47 years had been connected with the Maryborough Hospital, Victoria, died on November 16th. He was for years one of the most prominent residents in the district, having arrived there half a century ago. He was appointed to the hospital at the age of 24, but advancing years necessitated his retirement from full control of the hospital some three years ago. Since then he has been consulting surgeon.

THE BATTLE OF THE CLUBS.

Grafton, New South Wales.

We are pleased to be able to report that the lodge dispute at Grafton has been amicably settled. Only one outside application was received under the old rules, so the lodge decided to meet the doctors in conference, when the alterations were discussed and practically all agreed to. The minimum of £1 per year per member was agreed to; the lodges now contracting directly with the chemists, who are to receive 7s per member per year. The eligibility of every resident medical man to act as lodge doctor was recognised, a schedule of fees for operation was fixed at fairly satisfactory figures, and various minor alterations in the doctors' favour were also conceded. In fact, the agreement, as amended, reveals a substantial improvement in the position of the medical officers, and will, without doubt, prove much more satisfactory in the working. The right of each doctor to close his list at 250 members was also granted, that is to say, no vital amendment that the doctors suggested has been omitted from the new agreement.

Sydney Medical Mission.—The annual meeting of the Sydney Medical Mission was held on December 5th. Sir Philip Sydney Jones presided, and, like other speakers, spoke in hearty appreciation of the work of the mission. The annual report contained the following figures from the doctor's report:—Visits paid to the homes of 634 patients, 2144; attendances at dispensary of 2186 patients, 6998; operations requiring the administration of a general anæsthetic, 7; total number of patients treated, 2186. The receipts for the year were £370, and there is a balance in hand to commence the new year.

Oral Sepsis—"EUMENTHOL JUJUBES" (Hudson) Made in Australia.
A Gum Pastille containing the active constituents of well-known Antiseptics, Eucalyptus Globulus, Thymus Vulg., Pinus Sylvestris, Mentha Arv. with Benzoborate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic, prophylactic, reducing sensibility of mucous membrane. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after a comparative test of "Eumenthol Jujubes" and beechwood Creasote, reports that there is little difference in their bactericidal action. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creasote.' G. Hudson, Manufacturing Chemist, Ipswich, Queensland. London Agent: W. F. Pasmore, Chemist, 320 Regent-street. W.—[Advt.]

Australasian Medical Congress.

PRESENTATION TO DRS. POULTON AND GUNSON.

At the last meeting of the South Australian Branch of the British Medical Association, at the conclusion of the formal business of the evening, Dr. W. T. Hayward asked the President's (Dr. Lendon) permission to read the following letter which he had received from Dr. G. A. Syme:—

19 Collins-street,
Melbourne, Nov. 23rd, 1905.

Dear Dr. Hayward,—Towards the close of the last meeting of the Medical Congress a proposal was made that members should recognise their very great obligations to Dr. Poulton as the originator of the Congress. Subscriptions were invited, and the State secretaries undertook to communicate the proposal to members in their respective States. It was decided to ask you to be good enough to kindly act as hon. treasurer. The subscriptions received have now been forwarded to you, so that you may select some suitable memento for presentation to Dr. Poulton that will perpetually remind him that his great work in originating the Congress, and so successfully organising the meetings in Adelaide, is warmly appreciated, not only in his own State, but by members throughout Australasia.—Yours faithfully, G. A. Syme.

Dr. Hayward thought he could best introduce the subject to which he wished to draw attention by reading the above letter. Needless to say, he was pleased to accede to Mr. Syme's request. In order that the memento might be a suitable one, he secured the assistance of Mrs. Lendon and a lady who was personally interested in the matter. He trusted that they had been successful. He was sure that he voiced the feelings of all present by saying that they were highly gratified that their *confrères* from the other Australian States and New Zealand had honoured one who was not only greatly respected, but held in such affectionate regard in South Australia. He had much pleasure in asking the President to request Professor Stirling to make the presentation.

The President (Dr. Lendon) here called upon Professor Stirling, President of the Australasian Medical Congress.

Professor Stirling said that he was very pleased—indeed, he was very proud—that what was positively his last appearance as President of the Australasian Medical Congress, gave him the opportunity of discharging a most pleasing duty. The occasion of the Congress held in Adelaide caused them to remember—indeed, most of them required no reminder—that, as stated in Dr. Syme's letter, the real originator of the system of Congresses was Dr. Poulton, the man whom they were about to honour. They had seen the Congress grow from its small proportions of its first meeting in Adelaide, 18 years ago, until it had assumed a magnitude that had made it such an important factor in the life of the medical profession of Australasia, and they might feel sure that Dr. Poulton would find his best reward in the success of the efforts of which he was the initiator. But it had seemed good to some members of the Congress, chiefly he should say to their visitors, that Dr. Poulton's efforts should receive some recognition in a tangible form. The outcome was the presentation which he should have presently to make. And not only was attached to Dr. Poulton the special credit of having been the originator of the Medical Congresses, but they recognised in him the man who had occupied the exceptional position of having twice discharged the duties and borne the labours of the secretaryship, and no one who had not held a similar position could adequately appreciate its difficulties and anxieties, which he so successfully surmounted to, the speaker believed, the complete satisfaction of all who did them the honour of visiting Adelaide. He was sure that if any further reason for doing honour to Dr. Poulton were required, it would lie in the fact that all respected and esteemed him as a man of scrupulous honour and integrity in all his relations, professional and otherwise. He might say more in praise of Dr. Poulton, but they all knew his natural modesty, and he was loth to add to his embarrassments. They at least who knew him so well felt that he well deserved the honour which their genial and friendly visitors had sought to confer upon him, and it was with the very greatest pleasure that he (Professor Stirling) fulfilled the duty imposed upon him by asking Dr. Poulton to accept the token of appreciation of his signal services.

Professor Stirling, amidst loud and continued applause, here handed Dr. Poulton a service of plate.

Dr. Poulton, whom the presentation had taken completely by surprise, expressed his thanks to members of the Congress and his gratification at receiving such a valuable and handsome memento of the work he had been privileged to do for the Adelaide meetings. He was somewhat at a loss to understand why he should have been singled out for such a distinction, especially remembering the valuable and conspicuous work of the President, the Treasurer, and the members of the Executive Committee. As to the secretarial work, the associate secretary, Dr. Gunson, had done and was doing much to further the interests of the Congress; his assistance had been invaluable. He wished specially to mention the very valuable services rendered to Congress by the State secretaries. Without their cooperation and efforts the meetings could not have been held. They were men who commanded the confidence of the profession, who had done yeoman service in a cause which contributed very considerably to the federation of the profession throughout Australasia. Personally he felt much indebted to them for much help, many kindnesses and great consideration. In again thanking members of Congress for their great kindness and generosity, he could assure them of the pride with which he and his family would use and keep always their valuable gift, which would be a constant reminder of a good work in which he had been permitted to participate. (Loud applause.)

At the conclusion of the presentation to Dr. Poulton, Dr. Hone rose and said that when it was known that visitors from the other States intended to make a presentation to Dr. Poulton, several of the local medical men thought that they, too, would like to participate. They were, however, debarred from this by the fact that the presentation to Dr. Poulton was confined to visiting members of the Congress. As they were unable to give tangible evidence of their esteem for Dr. Poulton, it seemed good to them to recognise in some way the services of his associate in the secretarial work of the Congress. The result was the presentation which he would now ask Professor Striling to make to Dr. Gunson.

Professor Stirling said that he had much pleasure in acceding to Dr. Hone's request. The reception that had been accorded Dr. Gunson on the final day of the Congress was such as had fallen to the lot of very few men. As President of the Congress he was in a position to bear testimony to the untiring energy and unfailing tact of Dr. Gunson. On behalf of the profession in South Australia he asked Dr. Gunson to accept the spirit tantalus which he now handed to him.

Dr. Gunson, who received an enthusiastic reception, said that his labours were only a fraction of those performed by Dr. Poulton. Anything that he had done it had been a pleasure to do. He asked members to excuse him from saying any more, as he did not feel capable of expressing his feelings in words. He thanked them for the totally unexpected honour they had paid him.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the City Health Officer, reports that the deaths of residents in the municipalities of Sydney and suburbs, exclusive of patients in Gladesville and Callan Park Hospitals for the Insane, numbered 417. This is the smallest number of deaths recorded in any November during the past ten years, and corresponds to an annual mortality rate of 9·47 per 1000 of the essimated mean population, and, when corrected for the metropolitan proportion of the deaths in hospitals for the insane and benevolent asylums for the aged and infirm throughout New South Wales, 10·22 per 1000. The mortality from diarrhœal diseases exhibited an increase, as is usual during November, but the increase was very much less marked than usual. The total deaths from this group of diseases numbered 50, compared with an average of 98 for November in the five previous years. Infectious diseases other than diarrhœal caused 15 deaths, of which 4 were attributed to diphtheria, 4 to puerperal fever, 1 to erysipelas, and 2 to scarlet fever, influenza and typhoid fever. Phthisis caused 24 deaths, or 13 less than the quinquennial average for November. Bright's disease, with 20 deaths, was also less fatal than usual. Cancer caused 38 deaths, and diseases of the heart and blood vessels, 63 deaths. Respiratory diseases caused a much greater mortality than in November of last year, but not more than the average from these causes in previous Novembers. Bronchitis caused 14 deaths and pneumonia 32. Deaths of infants under one year numbered 88, which is equal to an infantile mortality rate of 80 per 1000 births, the lowest recorded during any November in the past ten years, and 50 per cent. below the average for the month. This low mortality among young children was due to the relative slight prevalence of diarrhœal disorders. Notified attacks of the notifiable infectious diseases numbered 280, of which 201 were due to scarlet fever, 46 to diphtheria and 33 to typhoid fever. Scarlet fever was unusually prevalent, but on the other hand there was less typhoid than usual.

Scarlet Fever.—Scarlet fever has been very prevalent in the metropolis, and the resources of the Coast Hospital are being severely taxed, owing to the unusual demand for beds for patients suffering from the disease. At the present time 60 beds are occupied by persons suffering from the infection, and owing to the pressure on the hospital accommodation, the medical staff has been compelled to refuse admittance to a number of sufferers.

Bubonic Plague.—In consequence of a further outbreak of plage at Honolulu, the Board of Health has decided to enforce the usual restrictions with regard to vessels arriving here from that port. Masters of vessels will be required to furnish a certificate, endorsed by the British Consul at Honolulu, setting out that they have been fended off from a jetty or pier at that port. Unless such certificate is produced, a vessel will have to be unloaded into lighters, and afterwards fumigated. A notification to this effect has been forwarded to Honolulu for the information of masters of vessels chartered to load cargo there for New South Wales.

Plague infected rats continue to be found in the neighbourhood of Darling Harbour from time to time. It is reported that three cases of plague occurred on the French mail steamer "Ville de la Ciotat," which left Sydney on November 6th, and reached Fremantle on November 16th. The disease appeared the day after leaving Port Adelaide, and a number of dead rats were found on board. As plague is not known to be existent at any other port than Sydney between here and Fremantle, it is evident that the "Ville de la Ciotat" received the infection either at Noumea or else at Sydney. In any case it points strongly to the danger either of plague being re-introduced from an infected port, or to the possibility of an outbreak occurring in Sydney at any time.

South Australia.

Central Board of Health.—A meeting of the Central Board of Health was held at the offices, Victoria-square, last month. In reply to a request for advice as to whether this board or the Local Board of Health had any power of compulsion at law as to the prevention of overcrowding in State schools, the Chief Secretary forwarded the opinion of the Crown Solicitor, which showed that the Minister of Education (or any other officer having the use or control of premises owned or occupied by the Government or by public bodies) is bound to comply with the lawful requirements of the Health Act, 1898, and that on failure so to do the Central Board of Health has all such rights against such officer as it has against any private person. The health officer at Port Darwin reported the arrival of the "Empire," five and a half days from Manila, where cholera and plague existed. Communication with the shore had not been allowed. The Chairman reported that he had instructed the health officer to inspect the passengers and crew, and grant pratique if no quarantinable disease on board. The Under Secretary forwarded a telegram received from the Department of External Affairs reporting plague and cholera at Noumea. The board favoured the five days' limit of the Paris Convention, 1903, and expressed a desire that uniformity of action with the States might be secured. Bulletins of plague were before the board from Queensland, Singapore, Hongkong, Egypt, Cape Colony, and India. The infectious disease returns showed four cases of scarlatina at Port Pirie, three at Norwood, two at Adelaide, two at Third Creek, one at Ridleyton, and one at Wallaroo. Five cases of erysipelas at Adelaide, and one at each of the following places:—Brompton Park, Knightsbridge, Hindmarsh, Delamere, St. Peters, Thebarton, and Wallaroo. Three cases of pulmonary tuberculosis at Adelaide, and one at each of the following places:—Payneham, Towitta, Port Adelaide, Manoora, Hackney, Thebarton, and Parkside. Two cases of typhoid fever at Adelaide, one at Penrice, and one at Gawler. Two cases of diphtheria at Mobilong, one at Southwark, and one at Port Adelaide. The infectious disease mortuary returns showed two deaths from pulmonary tuberculosis at Adelaide, two at North Terrace Consumptive Home, two at Gilberton, and one at each of the following places:—Ebenezer, Parkside, Sutton Town, Allandale East, Rendelsham, and Moonta Mines; one death from scarlatina at Adelaide; one death from cerebro-spinal meningitis at Mount Gambier; one death from enteric fever at Adelaide Hospital; one death from erysipelas at Port Pirie.

Tasmania.

Hobart City Health Department.—The Mayor of Hobart in his valedictory address to the City Council referred to the work accomplished by the Health Department. He said that the work had been smooth and efficient, the inspections have been regularly carried out by the active staff, and have proved that a distinct improvement is taking place in the general cleanliness of the city. The number of premises found to be insanitary during the general inspection now proceeding has been found to be far less in proportion to the whole than was the case in 1904. The by-laws have been carried out without any complaints being received as to their necessity or fairness, and new by-laws have been suggested, which are considered necessary owing to the growth of the city. No epidemic of infectious disease has occurred; only two suspected cases of scarlet fever, and three of diphtheria were reported to the Local Authority, and the incidence of typhoid fever, which was reduced from 61 cases in 1903 to 47 in 1904, has shown a further reduction to 38 for 11 months of the current year. Infant mortality has fallen very markedly, from 113 in 1903, to 75 for ten months of 1905, or an average for the year of approximately 88 deaths. The dairies have been brought more into line with modern requirements, and the regular testing and analysing of milk has been undertaken by the Health Officer with up-to-date appliances. The provision of an isolation hospital and a disinfecting station for the city has been well discussed, and it is hoped that steps will now be taken to fill these urgent needs for the protection of the general health. There has been great improvement made in clearing away insanitary dwellings, and this necessary work has tended to increase the overcrowding in poor dwellings. The number of notices served, some 600, for the correction of nuisances, is proof of the efficiency of the department.

UNIVERSITY INTELLIGENCE.

Sydney.—At a meeting of the Senate of the University on December 4th, the Chancellor, Sir Norman MacLaurin, announced the receipt from Mrs. William Grahame, of Waverley, of the sum of £1000 for the purpose of founding prizes or a scholarship, or both, in mechanical engineering, to be called the William and Jane Grahame Mechanical Engineering Prizes, or Scholarship, as the case may be. It was resolved that the best thanks of the Senate be transmitted to Mrs. Grahame for her gift, and that it be referred to the Faculty of Science to draw up regulations for the award of the scholarship. The following recommendations contained in a report from the Faculty of Science were adopted:—1. Students who have completed their second year in civil engineering may proceed to the degree of Bachelor of Science by attending the third year courses of instruction in mathematics and physics, and passing the examinations in those subjects. 2. Students in mining engineering who have completed their third year may proceed to the degree of Bachelor of Science by attending third year courses of instruction in chemistry and geology, and passing the examinations in those subjects. 3. Students in mechanical and electrical engineering who have completed their second year may proceed to the degree of Bachelor of Science by attending the third year courses of instruction in mathematics and physics, and passing the examinations in those subjects. 4. It is to be understood that students taking advantage of these concessions must devote their whole time to the prescribed work of the third year of science. A letter was received from the Consul for Italy, Dr. V. Marano, suggesting the inclusion of the Italian language in the curriculum of the University and in the senior public examination. The letter was referred to the professorial board for report.

University of Melbourne.—The annual report of the University of Melbourne shows that, as the result of the Premier's grant of £10,000 from the surplus revenue and of further sums of £2000 for apparatus and £12,000 for building and equipment in connection with courses in mining and agriculture, the increase of the statutory endowment to £20,000 for ten years in certain conditions, together with the rigid economy of several years past, the council has been enabled to reduce the debt on the general account from £21,000 to £18,000, and to wipe out completely the deficiency of £14,500 in the trust funds. The appeal to raise by public subscription a fund sufficient to claim the surplus revenue grant had realised £13,325, £8900 of which was given for special objects and £4400 for general purposes. It is intended to erect new laboratories for botany, bio-chemistry, and pathology. The following new appointments are to be made:—A professor of botany, who will also act as Government botanist; a lecturer in bio-chemistry, an additional lecturer in chemistry, an additional lecturer in bacteriology, a lecturer in veterinary anatomy. A new professorship of anatomy has been erected, Professor Allen, who has occupied the combined chair of anatomy and pathology, taking the position of Professor of Pathology. Provision has been made for giving dentistry students at once the benefit of university teaching, pending the completion of arrangements for establishing a faculty of dentistry. It is hoped the affiliation of the Australian College of Dentistry will be completed before the end of the year. The number of students attending lectures (including evening lectures) during 1905 is 750, as compared with 543 in 1904. The following have passed the annual examinations in the Faculty of Medicine:—*First Year*—Passed (35): J. K. Adey (T.), J. J. Black (O.), H. N. Butler (O.), S. J. Campbell (O.), S. J. Cantor (O.), T. O. Chenoweth, L. J. Clendinnen, K. G. Colquhoun (O.), H. V. P. Conrick, H. Cordner (T.), J. C. Craig (O.), R. F. England (T.), J. F. Fairley, J. G. R. Felstead (Q.), E. A. Fleming (T.), R. Fowler (T.), Hilda A. Greenshields (T.), B. J. Hattam (Q.), R. P. Hodgson (Q.), T. E. V. Hurley (Q.), A. T. Langley (T.), A. B. McCutcheon (Q.), S. F. McDonald (T.), A. A. McKay (T.), C. McShane, E. T. C. Milligan (O.), P. L. H. Mountjoy (Q.), H. A. S. Newton, R. F. O'Sullivan (O.), H. Rogerson (O.), J. I. Rowan (O.), Brenda Sutherland, Elsie L. Thomas, W. G. D. Upjohn (Q), J. W. Wilkinsno (T.). *Second Year*—Passed (31): J. H. Anderson (O.), A. F. Bell (O.), D. Bennett, J. B. Brady, E. T. Brennan (T.), C. L. Clarke, Elizabeth E. Clucas (Q.), F. E. Cox (O.), K. S. Cross (T.), V. F. Crowe, W. G. H. Cuscaden,

C. J. Daniel, J. R. Davis, Paul L. Florance, M. C. Gardner (T.), J. P. Horgan, A. S. Johnson, C. E. King (O.), Alice M. Lavarack (T.), F. B. Martin, L. J. C. Mitchell (Q.), A. W. Morgan (Q.), R. L. Morton, J. A. O'Brien, R. A. Robertson (O.), M. E. Robinson (O.), W. B. Ryan, W. C. Sangster (O.), A. E. South (T.), N. L. Speirs (Q.), M. L. Williams (T.). *Third Year*—Passed (32): G. B. Bailey (T.), J. B. Bell, D. Buchanan, H. J. Cahill, A. A. Crooke, M. C. Davies (Q.), Maud Dodgson, R. M. Downes (O.), R. H. Ebsworth, O. A. Feilchenfeld, F. A. Ferris, R. N. S. Good (O.) H. J. Gray, Ethel M. Hawkins, M. J. Holmes, J. Kennedy, G. Lamble, J. Love (Ormond), J. J. M'Mahon, C. R. Merrillees, A. Y. Nankivell, W. H. Nelson, C. L. Park, W. L. Potter, C. P. Rowan, F. V. G. Scholes (Q.), C. G. Shaw (O.), J. G. V. Shelton, L. O. Sleeman, C. V. Stephens, W. E. Wilson (O.), L. P. Winterbotham. *Fourth Year*—Passed (31): H. Blaubaum (Q.), H. S. Bourke, Sarah M. Campbell, J. Catarinich, Muriel K. Davies (T.), G. W. Deravin, P. V. Devine, J. W. Dunhill (Q.), R. L. G. Elcoate (T.), H. B. Gill (T.), J. J. L. Gill, Ethel Good, T. S. Hutchings (Q.), Margaret Jamieson, O. Joynt, A. F. Maclure (O.), C. I. McLaren, R. G. McLay (O.), D. M. McWhae, E. P. Oldham (O.), J. A. Opie, J. I. Parer, M. D. Silberberg (Q.), J. F. Spring, Viva St. G. Sproule, H. W. Sweetnam (O.), Ada C. Talbot (Q.), C. G. Thompson, J. Ward (T.), E. R. White (T.), A. S. Young. *Fifth Year*—Passed (19): J. G. Avery (O.), W. G. Brown (Q.), Mabel G. S. Crutchfield, P. G. Dane, H. R. Duncan (O.), A. E. Harker, H. M. Hewlett, L. S. Kidd, F. E. Langley (T.), J. H. Leon (O.), C. V. Mackay (Q.), J. J. Maloney, G. C. McK. Mathieson (Q.), S. F. Ridley, S. V. Sewell (Q.), C. Shields (T.), H. G. Wadelton, A. Weigall (O.), Isabella Wilkinson.

HOSPITAL INTELLIGENCE.

Brisbane Hospital.—At the ordinary meeting of the Brisbane Hospital Committee held last month the report of the medical superintendent (Dr. McLean) for the fortnight ended November 25th showed that 74 patients had been discharged, 142 admitted, 248 remained under treatment, and 15 were at the Convalescent Home. A return showed that the contributions for the year were £1847 17s 11d to date, against £3922 12s for the corresponding period in 1904, and £3331 14s 1d for 1903. It is worthy of note that increases were shown in the amounts from patients, which were £81 4s 10d, against £72 15s 7d last year, and £67 10s 9d in 1903; and from boxes £80 6s 2d, against £59 19s 4d last year, and £56 0s 1d last year. Local government contributions were £94 in 1903, £48 17s in 1904, and £23 8s this year.

Sydney Hospital.—At the monthly meeting of the board of directors held on December 5th, the accounts for November, amounting to £1811 16s 3d, were passed for payment. Communications were received from Drs. Adams and Bligh tendering their resignations, and from the hon. medical staff that the appointment of an optician to the hospital would be inadvisable. The hon. treasurer was authorised to accept £700 in settlement of all outstanding claims under the will of the late Jane Davy, deceased. Suggestions made by the sub-committee appointed for the purpose concerning the attendances of the hon. medical staff were received and approved.

The Coast Hospital, Sydney.—During last month 270 patients were admitted to the Coast Hospital. Of these 194 were general cases, whilst 76 patients suffered from infectious diseases. The number discharged was 258, of whom 216 were cured, 37 relieved, and 5 unrelieved. There were 15 deaths. The number remaining in the institution at the end of the month was 315. Of these 212 were general cases and 103 infectious. The latter consisted of enteric fever 10, erysipelas 9, diphtheria 31, scarlet fever 49, and measles 4. The daily average number for the month was 316·36. Altogether 102 cases were removed by ambulance from the city to the Coast Hospital, and 10 to asylums for the infirm, whilst 21 patients were transferred to convalescent homes.

Launceston General Hospital.—At a meeting of the board of management of the General Hospital last month it was reported that 199 in-patients had been treated during October, and 119 out-patients. There had been six deaths during the month. The chairman reminded the board that it had been decided to offer a prize for the best design for the new operating theatre. Dr. Pardy gave notice to move at next meeting:—"(1) That it is expedient that an inquiry officer be appointed at once to inquire into the financial position of the patients admitted to the hospital and those treated in the out-patients' department; (2) that a complete list of the new admissions to the hospital, and the new out-patients, with their occupations and addresses, be laid on the table at each monthly board meeting."

Sanatorium for Consumptives, Victoria.—At the meeting of the committee of the Victorian Sanatoria for Consumptives it was reported that the urgently necessary repairs and renovations at Macedon Sanatorium are almost completed. The admission committee had accepted 15 patients since the last meeting. Attention was called to the fact that on account of the impossibility of obtaining accommodation for several incurable cases the beds occupied by these patients could not be made available for a like number of suitable early cases.

Melbourne Hospital.—The general committee of the Melbourne Hospital gave further consideration to awarding prizes of £300, £100, and £50 in connection with designs for the new building. There was considerable difference of opinion as to the merits of plan A and plan S. A committee of experts had allotted plan S first place, plan A second place, and plan C third place, while the responsible hospital officials gave first place to plan A. The committee, by 11 votes to 8, placed plan A first, and awarded second prize to plan C, and third prize to plan S. The first prize has been secured by Mr. John A. B. Koch, of Melbourne; the second prize by Messrs. J. J. and E. J. Clark, of Melbourne; and the third prize by Messrs. Sulman and Power, of Sydney.

Royal North Shore Hospital, Sydney.—At the invitation of the committee of the Royal North Shore Hospital there was a large attendance at the institution on December 9th to witness the unveiling of a marble tablet, upon which are inscribed the names of the benefactors to the hospital. The ceremony was performed by the State Attorney-General

(Mr. C. G. Wade), and the attendance included the president and members of the executive of the hospital, the hon. medical staff, the matron (Miss Goddard), the subscribers, and others interested in the progress of the institution. The tablet has been placed in the vestibule, and the names inscribed upon it are those of David Berry (the first benefactor, and who gave to the trustees the site upon which the old cottage hospital was built), James Milson, Thomas Walker, Dr. John Hay, Mrs. Elizabeth Feeney, Mrs. Marguerite Talbot, J. H. French, Thos. Dalton, W. G. Matthews, Thos. A. Dibbs, the Sydney Banks' Coronation Gift, In Memoriam, Mrs. Jane Davy, Sir Daniel Cooper, Sir Wm. Macleay, and the Sydney Turf Club, who gave sums ranging from £1000 to £50. Mr. J. R. Carey, the president, in asking Mr. Wade to unveil the tablet, referred to the good work already accomplished, but drew attention to the inadequacy of the accommodation, especially in the female ward. At the present time there were five or six patients waiting for beds in this ward, therefore additional funds were required to enable the committee to cope with the increasing demands of the district. The Government had already given great assistance, but it was from the residents of the large northern suburbs that the money should come. There were 60,000 to 70,000 people on this side of the harbour, and if each gave the modest sum of 1s it would be sufficient to meet the wants of the institution. Last year the total revenue was £2421, and the expenditure was £2367; and this year (for 10 months) the revenue was £3211, and the expenditure £2185, which would be considerably increased before the close of the year.

Walker Convalescent Hospital, Sydney.—The twelfth annual report for the year ended September 30th, 1905, states that the number of patients in hospital, September 30th, 1904, was 68; admitted during year, 890; discharged during year, 890; remaining in hospital September 30th, 1905, 68; of these 824 were discharged cured, 63 relieved, 2 unrelieved, and 1 died. Daily average, 74; average residence of discharged patients, 28½ days. The admissions for the year total 890, the classification being 377 men, 401 women, and 112 children. Regarding the last named, it is a matter for regret that the Children's Cottage is not taken more advantage of. During the year several patients were returned to the different hospitals as requiring more active treatment. A female suffering from appendicitis was sent by ambulance to the Sydney Hospital for operation; one case of enteric fever, two of rheumatism and endocarditis, one case of gallstones, and another of fits; also two men suffering from malignant disease were sent to Liverpool (these were incurable and unsuitable cases). One patient who was admitted convalescent from an abscess in the neck developed symptoms of typhoid fever a few days after admission. On inquiry it was found that she had come from the Coast Hospital, and had been treated there in the same ward with typhoid fever patients. She was immediately sent to the Sydney Hospital, and every step taken to prevent any spread of the disease. Three children developed symptoms of chicken-pox also a few days after admission, and were at once discharged to their homes or hospital.

The time for receiving applications for medical officership for the Thirlmere Consumptive Hospital has been extended to January 15th, 1906.

MEDICAL NOTES.

Charitable Donations and Bequests.—The Melbourne Children's Hospital committee have received a cheque for £2700, being portion of a bequest of the late James Evan Yates, also a cheque for £83 8s 8d from a bazaar organised by the children of State school 888, Camberwell, in aid of a cot which they have supported for several years. The Melbourne Women's Hospital is entitled to a fifth share in the estate of the late Mr. James E. Yates, which recently paid probate duty on £32,309. By her will the late Miss R. M. Yates, of Victoria-parade, Collingwood, after making several small bequests, directed the sale of her real and personal estate, and bequeathed the net proceeds between the Women's Hospital and four other institutions. The gross value of the estate was about £875. At a recent meeting of the committee of the Adelaide Queen's Home it was unanimously resolved to hand over to the Home for Incurables any sum beyond £1000 received from the Government House Fête. The committees of the Trained Nurses' Association and the Royal British Nurses' Association have adopted the same course. The Home for Incurables will probably thus benefit to the extent of about £270. The Burwood branch of the ladies' auxiliary to the Royal Alexandra Hospital for Children, Sydney (building fund), raised £140 6s.

Linnean Society of New South Wales.—At the ordinary monthly meeting of the Linnean Society of New South Wales papers were contributed by Mr. J. H. Maiden, F.L.S., one establishing the fact that hybridisation prevails among certain Australian eucalpts, and is responsible for the production of forms which are apt to puzzle the botanist until their true nature is recognised; and a second paper throwing light upon the true relationships of some members of the genus Eucalyptus. By Mr. R. T. Baker, F.L.S., describing a new species of Cryptocarpa; by Mr. R. J. Tillyard, B.A., furnishing descriptions of three kinds of remarkable dragon-flies from Queensland; by Mr. C. Hedley, F.L.S., recording some important additions to the marine shell-fauna of New South Wales; and by Dr. R. Greig Smith (two), one giving an account of a slime-producing microbe of very variable form, and the other dealing with the question of the similarity, amounting possibly to identity, between the two groups of substances which, among others, are present in the blood serum of man and other animals, and procure immunity from bacterial attack.

New South Wales Civil Ambulance and Transport Corps.—The annual meeting of the Civil Ambulance and Transport Corps was held last month, Professor Anderson Stuart presiding. The report stated that 2710 cases had been attended to during the year. Of these 584 were conveyed to the Sydney Hospital, 396 to the Royal Prince Alfred Hospital, 154 to Balmain Hospital, 113 to St. Vincent's Hospital, 186 to private hospitals, 272 to homes, etc., and 367 to the other metropolitan and suburban hospitals. Since the formation of the brigade 17,484 persons had received the benefit of its services. The Circular Quay, Balmain, and Newtown branch stations continued to progress, and many calls were made upon their services. A reduced scale of charges was adopted in December, 1904, for persons specially employing the services of the corps and for those in a position to pay, it being considered that adequate remuneration should be obtained from the well-to-do who had the benefit of the services and experience of the corps. At the same time its services would continue to be gratuitously rendered to the poor requiring transport to the public hospitals or in cases of accidents, first aids, etc.

The Morgan Thomas Monument.—A party of gentlemen recently visited the North Road Cemetery, Adelaide, to inspect a monument which has just been erected over the grave of the late Dr. Morgan Thomas. Red rough-hewn granite is the material upon which an imposing monument has been erected. It stands 11 ft. high, and is of original symmetrical shape. The base and the pedestal are composed of a series of granite steps, above which rises the column or body, surmounted by a globe-shaped cap. Upon the western side the following inscription appears:—"To the memory of Morgan Thomas, M.R.C.S., Eng., sometime Assistant Colonial Surgeon. Born at Glyn Neath, Glamorganshire, Wales, 15th December, 1824. Died at Adelaide, 8th March, 1903." On a lower block the inscription is continued:—"Erected in grateful recognition of imperishable services to this State by his munificent bequest to the Public Library, Museum, and Art Gallery of South Australia."

PERSONAL ITEMS.

Dr. C. B. Pym, late of Marrickville, has removed to Collins-street. Annandale, Sydney.

Warrants have been issued under the Royal Sign Manual authorising Lieutenant-Colonel T. Fiaschi, Sydney, D.S.O., of the Army Medical Corps, to accept and wear the insignia of the fifth class of the Order of "SS. Maurizio e Lazzaro" and the fourth class of the Order "Corona d'Italia," conferred upon him by the King of Italy in 1896.

Dr. Ethel Ambrose, of Adelaide, has gone to India as a medical missionary. She goes out under the auspices of the Poona and Indian Village Mission.

At a distribution of certificates gained by members of the Parramatta Young Women's Christian Association Ambulance Class, at the rooms of the Association, Dr. W. S. Brown, lecturer of the class, was presented by the class with shaving outfit.

Dr. V. W. Savage, late of Oaklands, Tasmania, has succeeded to the practice of Dr. G. Lane Mullins at Murong, Albion-street, Waverley.

Dr. G. Lane Mullins has removed from Waverley to 66 Alberto-terrace, Darlinghurst-road, Sydney.

Dr. Eugen Hirschfeld has been appointed to act for Herr Von Plœnnies, the German Consul for Queensland, who has been granted leave of absence for three months owing to ill-health.

Dr. Zlotkowski, late of Mungindi, N.S.W., has commenced practice at 201 Macquarie-st., Sydney.

Dr. M. J. Lyden, late of Sydney, N.S.W., who has been taking some special post-graduate courses at Moorfields and Golden Square, London, is now house surgeon at the Bristol Eye Hospital.

During the absence of Dr. Culpin, M.H.R., from Melbourne, matters pertaining to his constituency will be attended to by Mr. J. Page, M.H.R. Dr. Culpin, who will leave for England by the steamer "Salamis" on December 2nd, will be absent from Melbourne till the end of April.

Dr. Cuscaden, health officer at Port Melbourne, Victoria, has received three months' leave of absence, and Dr. J. Newell was accepted as the acting health officer during that period.

Dr. C. C. McDonald has been re-elected mayor of Mount Gambier, S.A., for the fourth time.

Dr. W. J. Tilley returned to Sydney on December 7th after an extensive trip to England, America, and New Zealand.

Dr. Espie Dods has returned, and resumed private practice at 101 Wickham-terrace, Brisbane.

A public demonstration was held on December 6th to celebrate the opening of the new operating theatre at Casino Hospital, N.S.W., erected in memory of the late Dr. Stewart. The theatre was erected by public subscription, at a cost of over £200.

Dr. S. A. Smith, late of Killara, N.S.W., has succeeded to the late Dr. W. A. West's practice at the Glebe, Sydney.

The Executive Council has appointed Dr. Charles Edward Todd, L.R.C.P. and L.R.C.S., of Adelaide, to be an honorary commissioner to enquire into and report on the treatment of inebriates and matters of medical science generally in England and the Continent of Europe.

Dr. J. W. Barrett, being the only candidate nominated, has been elected a member of the Council of the Universty of Melbourne for five years.

Dr. Roth, Protector of Aborigines in Queensland, has been granted leave of absence after nearly eight years' service.

Dr. T. K. Hamilton has returned to Adelaide from a round-the-world trip to Europe and America, and resumed practice.

Dr. O. W. Smith has returned to Clare, S.A., after a trip to Ceylon, much improvd in health.

The teachers of the Manning River (N.S.W.) district entertained Dr. J. W. Gormley at a smoke concert in the Taree School of Arts on December 1st, and presented him with a smoker's cabinet as a mark of their appreciation of his kindness in delivering lectures under the auspices of St. John Ambulance Association.

Dr. Hugh Busby, who has been resident in Gulgong, N.S.W., for the past five years, was entertained at a smoke concert last month, on the eve of his departure for Bathurst, N.S.W. The Mayor presided over a large attendance.

The council of the Melbourne University, on the recommendation of the selection committees in England, have appointed Dr. A. J. Ewart, Professor of Botany and Government Botanist, and Dr. Richard J. A. Berry Professor of Anatomy. Dr. F. P. Sandes, who has been Acting Professor of Anatomy in Sydney University for the year, was one of the selected candidates for the post, but the Melbourne University Council considered that Dr. Berry's qualifications for the post were the best.

Dr. Lidwill, late of Ballarat, Victoria, has commenced practice at Beecroft, Sydney.

We are pleased to learn that Dr. Richard Read, managing director of the Great Cobar Copper-mining Syndicate, has sufficiently recovered from his recent illness in a private hospital to allow of his removal to his residence at Potts Point.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Sinclair, Thomas Walker, to be Assistant Medical Officer of Health for the Metropolitan Combined Districts, Department of Public Health.

VICTORIA.

Holmes, J., to be Hon. Medical Officer to the Warrnambool Hospital, *vice* Dr. Fleetwood.

To be Officers of Health:

Laurie, William Spalding, M.D., to be Acting Officer of Health *vice* James Patrick Kelly, M.B., resigned, Shire of Wyndham.

Merrilees, James Frederick, M.B., *vice* Charles Nathaniel Simons. L.R.C.S., resigned, Shire of Kerang (Kerang District).

The following persons to be Public Vaccinators for the districts set opposite their names respectively:—

Backhouse, John Burder, M.B., South-Western District.

Bill, George M.B., North-Eastern District.

Hayes, Horace Frederick, M.B., South-Eastern District.

Kelly, J.P., for the district of Broad Arrow.

Lemon, Ferguson Augustus, M.B., for the Midland District, *vice* Basil J. Adam, M.B., resigned.

Merrilees, James Frederick, M.B., North-Western District, *vice* Charles N. Simons, L.R.C.S., resigned.

Oliver, Charles Joseph, M.B., Shire of Kerang (Quambatook District).

WEST AUSTRALIA.

Rockett, R. N. F., to be Acting District Medical Officer and Acting Public Vaccinator, Northam, during the absence o J. B. Dunlop.

Saunders, J. H., to be Acting District Medical Officer and Public Vaccinator, Broome, and Quarantine Officer for the port of Broome.

Thomson, J. E., to be Acting District Medical Officer, Kookynie.

NEW ZEALAND.

The following persons to be Public Vaccinators for the district set opposite their names respectively:—

Buck, Peter (Te Rangihiroa), M.B., Ch.B. (N.Z.), to be a Medical Officer for the Maoris.

Claridge, Henry Arthur Herbert, M.B., B.S. (Durham), 1892, to be a Public Vaccinator for the district of Waihi.

Falconer, Alexander Robertson, B.Sc., M.B., D.P.H., to be Assistant Medical Officer of the Lunatic Asylum at Seacliff.

Stendahl, Brynjulf, M.C. (Christiania), to be a Public Vaccinator for the district of Rongotea.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been duly registered as legally qualified medical practitioners in their respective States:—

NEW SOUTH WALES.

Dowling, Norman, L.R.C.P. (Lond.), 1891, M.R.C.S., 1891.

Grant, William, M.B., C.M. (Aberd.), 1893.

For Additional Registration:—

Marsh, Harold Seaward, M.Ch (Syd.), 1905.

WEST AUSTRALIA.

Beadel, Algernon James, M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1902.

Swindley, Alfred Herbert, M.B., B.S., (Melb.), 1905.

Walker, Robert Milne, M.B., Ch.B., (Edin.), 1904.

SOUTH AUSTRALIA.

Browne, John Walter, M.B., B.Ch. (Irel.), 1900.

Hoggan, Bertram Brooke, L.R.C.P. and S. (Edin.), L.F.P. and S. (Glas.), 1888.

TASMANIA.

Philpots, John Richards, L.R.C.P. (Edin.), 1872, L.R.C.S. (Edin.), 1872.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

GOCHER.—November 6th, at Holmesdale, Jeffcott-street, North Adelaide, the wife of G. Gocher, M.D., Bordertown, S.A.—a daughter.

HAY.—November 21st, at "Lyndhurst," Moonee Ponds, Victoria, the wife of John Binny Hay, M.B., and C.M. (Edin.)—a daughter.

SMEATON.—November 15th, at Mount Barker, S.A., the wife of Bronte Smeaton—a son.

SPARK.—November 22nd, at Twickenham Villa, Katoomba, N.S.W., the wife of Dr. John Spark, of a son.

STANLEY.—November 30th, at her residence, Marius-street, Tamworth, N.S.W., the wife of Dr. G. P. Stanley—a daughter.

MARRIAGES.

CARTER—THOMAS.—October 27th, at St. Paul's Church, Burwood, by the Rev. Harry Bryant, Walter Robert, third son of W. L. Carter, Magenta, Cook-street, Randwick, Sydney, to Ethel Anne, only daughter of the late W. S. Thomas, M.R.C.S. (Eng.), L.S.A. (Lond.), late of Wollongong, N.S.W.

HALL—EWAN.—October 4th, at St. Stephen's Church, Phillip-street, Sydney, by the Rev. John Ferguson, Edwin Cuthbert Hall, M.D., of Parramatta, N.S.W., third son of the late Reuben Hall and Mrs. Hall, of Ashfield, to Mary Blair, third daughter of the late Mr. James Ewan and of Mrs. Ewan, Glenleigh, Penrith.

WHYTE—RUNDLE.—September 19, 1905, at St. Mary's Church, Sheffield, by the Rev. W. J. Cole, M.A., vicar, assisted by the Rev. Edward P. Blakeney, M.A., vicar of St. Anne's, Marcus Francis Beresford Whyte, Lieutentant Royal Navy, to Ethel Martha Boswell, younger daughter of George Edward Rundle, F.R.C.S. (Edin.), of Sydney, Australia.

DEATHS.

MACSWINNEY.—November 20, at Woodlands, Devonshire-street, Chatswood, Sydney, Dr. George Henry MacSwinney, aged 56 years.

WEST.—December 11, at his residence, Stoneleigh, Summerhill, Sydney (late of Montrose, Glebe, Sydney), William Augustus West, fourth son of the late George White West, of Ardenode, Co. Kildare, Ireland, in his 46th year.

BOOKS RECEIVED.

The Theory and Practice of Medicine. By F. T. Roberts, M.D., B.Sc., F.R.C.P. 2 vols.; tenth edition. London: H. K. Lewis, 136 Gower-street, 1905. Pages xvi.+136+814. Medium 8vo. Price, 26s net, two vols.

New South Wales Institution for the Deaf and Dumb and the Blind: Forty-Fourth Annual Report.

Nodal Fever (Febris Nodosa) Symptoms: Erythema Nodosum) Erythema Multiform. By A. A. Lendon, M.D. (Lond.-Lecturer on Obstetrics and on Diseases of Children, University of Adelaide. London: Baillière, Tindal & Cox Sydney: L. Bruck. Pages viii.+90; 4 coloured plates and 5 charts; demy 8vo. Price, 5s net.

The Food Factor in Disease. The Humoral Causation and Rational Treatment of the Paroxysmal Neurosis—Migraine, Asthma, Angina Pectoris, Gout and other degenerations. By Francis Hare, M.D., late Consulting Physician to the Brisbane Hospital. London: Longmans, Green & Co., 39 Paternoster Row, E.C. Price, 30s net.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS:—

Mr. I. Bruck, Sydney; Dr. Frederick Mueller, Chicago; the Hon. C. K. Mackellar, President, State Children's Relief Board, Sydney; Messrs. Burroughs, Wellcome & Co., London; New Zealand Government Tourist Department; Dr. W. H. Lang, Corowa, N.S.W.; Messrs. Parke, Davis & Co., Sydney; Dr. Sinclair Gillies, Sydney; Dr. W. H. Coutie, Parramatta; Dr. L. W. Bickle, Adelaide; Dr. Wilton Love, Brisbane; Dr J. R. Harris, Rutherglen, Victoria; Dr. Poulton, Adelaide; Dr. H. S. Newland, Adelaide; Dr. C. E. Todd, Adelaide; Dr. H. Laurie, Melbourne; Dr. Roper, Bridgeport, England; Dr. E. Champion, Ballarat, Victoria; Dr. E. A. Cook, Melbourne.

NB 785

U HOLZER
[illegible]
BOSTON MASS